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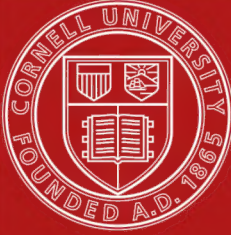
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JOURNAL OF THE YUKON

1847-48

BY

ALEXANDER HUNTER MURRAY

EDITED WITH NOTES BY

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A JOURNAL OF THE YUKON IN 1848

INTRODUCTION.

Alexander Hunter Murray, the author of this Journal, was born at Kilmun, Argyllshire, Scotland, in the year 1818. He emigrated to the United States as a young man, and joined the American Fur Company, with which he remained for several years. His service with the American Fur Company must have taken him pretty far afield, as witness his familiar references to Balize, Lake Pontchartrain, and the Red River of Texas, in the present Journal. In the spring of 1846, accompanied by the late Mr. Brazeau (afterward of Edmonton), he found his way from the Missouri to Fort Garry, where he entered the service of the Hudson's Bay Company as a senior clerk. He was appointed to the Mackenzie River District, under Chief Factor Murdoch McPherson, and set forth almost immediately for his post in the extreme north. His way lay by Lake Winnipeg and the Saskatchewan to Cumberland House; thence by Frog portage to the Churchill, and by Methye portage (famous in the annals of the fur trade) to the river and lake Athabaska. Descending Slave river to Great Slave lake, he entered the mighty Mackenzie, and reported to the head of his department at Fort Simpson. Some where on his journey—perhaps at Fort Chipewyan, on Lake Athabaska—he had had the good fortune to meet the daughter of Chief Trader Colin Campbell, of the Athabaska District. After a brief courtship, they were married *à la contract*, by Chief Factor McPherson—there being no clergy so far north at that time. Murray and his young wife spent their honeymoon descending the Mackenzie, a long and, under the circumstances, no doubt delightful journey. Finally they reached the mouth of Peel river, and turned up to Fort McPherson, where they wintered.

In the early spring Murray took his wife over the mountains to Lapierre House, on Bell river. Returning to Fort McPherson, he made all preparations for the important journey

described in this Journal. Leaving the fort on June 11, 1847, he reached Lapierre House three days later. On the 18th he embarked with his men in the *Pioneer*, a stout river-boat built at Lapierre for the expedition, and set forth to the westward, his wife remaining at Lapierre. Murray's object was to build a post on the Yukon, a practicable route to which had been discovered three years before by Chief Trader John Bell. Bell, after exploring Peel river in 1839, and building Fort McPherson in 1840, had crossed the mountains to what was then known as Rat river—later named Bell, in honour of its discoverer. Descending this stream to its junction with a larger river known as the Porcupine, he explored the latter to some where about the present international boundary—three days' journey down stream. This was in 1842. Two years afterward he completed his exploration of the Porcupine to its mouth. The natives informed him that the great river into which the Porcupine emptied was called the Yukon—or Youcon, as the traders spelled it. As a result of this journey, it was decided to establish a post on the Yukon, near the mouth of the Porcupine, and, as already mentioned, Murray was entrusted with this important task.

Descending Bell river to the Porcupine, Murray reached the Yukon, June 25, and, after some difficulty, found a suitable site for his fort, about three miles above the mouth of the Porcupine, on the east bank of the Yukon. Thenceforward his journal is devoted to a detailed narrative of the building of Fort Yukon, and the visits of parties of Indians from up and down the river. Of these he offers us a lively description, and seems to have missed no opportunity of questioning them as to the character of their country, the fur-bearing and other animals found there, and the language, manners and customs of the inhabitants—all of which is duly recorded in his journal. After spending the winter at Fort Yukon, Murray left June 5, 1848, for Lapierre House, with the 'returns' of the new establishment. He rejoined his wife at Lapierre House, June 23, having been absent a little over a year.

Here his present journal ends, but a few words may be added as to his subsequent career, for which, as well as for the particulars of his life previous to the Yukon journey, the

editor is mainly indebted to Mr. Roderick MacFarlane, of Winnipeg, formerly Chief Factor in the service of the Hudson's Bay Company. Mr. Murray seems to have returned to Fort Yukon the same year, taking his wife with him. In 1850 he accompanied Robert Campbell (of whom something will be said later) to Lapierre House; and the following year finally left Fort Yukon, returning to Fort Simpson on the Mackenzie, where he spent the winter. In the autumn of 1852 he reached Fort Garry with his wife, and several children, who had been born to them in the north country. Murray spent the succeeding winter at Fort Pembina (now Emerson), of which he had charge for the Hudson's Bay Company, for several years, after which he was appointed to the management of the district of Lac la Pluie, or Rainy Lake, and Swan River. Returning to Pembina, he was promoted to a Chief Tradership in 1856. The following year, being in poor health, he made a trip to Scotland, where, curiously enough, he met Joseph James Hargrave, who a few years later was himself to become a resident of Fort Garry. When Hargrave came out in 1861, one of the first men he met on the banks of the Red river was Murray. The meeting took place at the little settlement of Georgetown, to which Hargrave had travelled overland from the south, on his way to Fort Garry.

'After supper I went for a stroll,' he says in his "Red River." 'Before we had proceeded fifteen yards I observed symptoms of occupancy about a house in the village which had during my short residence been shut up and uninhabited. On inquiry, I learned the house was the residence of the local representative of the Hudson's Bay Company, Chief Trader Murray, who had that afternoon arrived on board the steamer, accompanied by his family and servants; and as we passed his gate we encountered that gentleman himself standing at the entrance to the inclosure before his house smoking his evening pipe. On hearing my name Mr. Murray greeted me as an old acquaintance, but I ridiculed the idea, till he mentioned the fact of my having one morning walked to the Waverley Bridge Railway Station in Edinburgh along with him, when I at once remembered the circumstance as having occurred in 1857, after a night which Mr. Murray passed in the house where I lived at the time. I accounted for my forgetfulness by assuring the

gentleman that his European trip of 1857 had answered its health-restoring purpose so well that I would fail to recognize the Edinburgh invalid in him. We seated ourselves in a small porch, the walls of which were adorned with guns, shot-belts, and other implements of the chase, artistically hung, and Mr. Murray entered into full details relating to certain parts of the world he had visited. His own experience in Rupert's Land had been great and long continued—but the adventure on which he most prided himself, evidently, was his having founded the most remote post of the company, Fort Youcon, in Russian America, situated within one or two degrees of the Arctic circle.' Lewis H. Morgan had accompanied Hargrave from St. Paul, gathering material for his great work, 'Systems of Consanguinity and Affinity of the Human Family,' and while at Georgetown obtained valuable assistance from Murray in the filling out of his elaborate schedules of relationship, for several of the northwestern tribes.

About this time Murray was given charge of Lower Fort Garry, where he spent several seasons. He retired from the service of the company in 1867, and spent the remaining years of his life in quiet leisure on the banks of the Red river. For a time he made his home in a cottage below Lower Fort Garry, which he named 'Kilmun,' after his birthplace. Later he moved south a few miles to 'Bellevue,' where he died, in 1874, at the age of fifty-six, leaving several sons and daughters, some of whom are still living. His eldest son, Alexander Campbell Murray (born 1859), is, or was a few years ago, in charge of Fort St. James, in Northern British Columbia, for the Hudson's Bay Company. He entered the company's service in 1876. (Morice's "Northern Interior of British Columbia," 332).

To return to the Journal, although not recording an original exploration, it is of interest from more than one point of view. It is the earliest detailed description we have of much of the ground covered; it affords very full information as to the manners and customs of the Indians of the Yukon, at the time when British fur-traders first went among them; it records the establishment of what might be called the extreme outpost of the Hudson's Bay Company; and, finally, it throws an exceedingly interesting sidelight upon the policy and methods of the fur

trade. The principal objects of the journey were the building of Fort Yukon, and the opening up of trade with the tribes of the Yukon country. This brought the H. B. men into what was then Russian territory, and into competition and possible conflict with the Russian-American Company—as to which Murray has a good deal to say. That the Russians did not, as Murray evidently expected, attempt to drive him back on to British territory, may have been due, to some extent, to the fact that the Russian-American Company was on the point of arranging with the Hudson's Bay Company a renewal of the profitable Agreement of February 6, 1839. It was probably, however, primarily due to the uncertainty on the part of the Russians as to the new fort being on Russian or British territory. On the other hand, Murray was perfectly aware, and so admits frankly in his narrative, that he was building on Russian territory. The explanation of this geographical ignorance on the one side, and knowledge on the other, is simply this: the Russians, as will presently appear, had never been as far up the river as the mouth of the Porcupine, and consequently had only the vague reports of natives to guide them; while Murray had not only explored the ground, from the opposite direction, but, having the benefit of Sir John Franklin's observations for longitude on the Mackenzie, was able to take that as a base and reach at least an approximate estimate as to the position of the boundary. As will be seen in his narrative, he was somewhat out in his calculations. Still, there was no manner of doubt as to the mouth of the Porcupine being well within Russian territory. Murray seems to have deliberately invaded the ground of his rivals, though he had no shadow of right to either build or carry on trade west of the boundary. It was all in the game of the fur trade, and that game was a rough-and-tumble affair at the best. It is possible, though improbable, that Murray was not aware of the terms of the Agreement of 1839, expressly prohibiting such an establishment. The second article of that Agreement (repeated word for word in the renewal of 1849) reads: It is further agreed that the Hudson's Bay Company shall not trade with the Indians nor receive in trade or barter nor hunt any furs or peltries on any part of the Russian territory on the northwest coast or islands than that ceded to them under the provisions of the foregoing article.'

As the territory so ceded or leased was confined to the strip between Cape Spencer and Portland Canal, it was a clear breach of the Agreement to build a post and carry on trade on the Yukon within Russian territory. Nevertheless the Hudson's Bay Company retained possession of Fort Yukon, and carried on their trade there, with or without the consent of the Russian American Company, until the sale of Alaska to the United States, when they were peremptorily ejected. Captain Charles W. Raymond visited Fort Yukon in 1869, on behalf of the United States government. 'On the 9th of August, at 12 a.m.,' he says ("Report of a reconnaissance of the Yukon River, 1871," p. 16) 'I notified the representative of the Hudson Bay Company that the station is in the territory of the United States; that the introduction of trading goods, or any trade by foreigners with the natives, is illegal, and must cease; and that the Hudson Bay Company must vacate the buildings as soon as practicable. I then took possession of the buildings and raised the flag of the United States over the fort.'

The Hudson's Bay Company thereupon abandoned the post, and moved up the Porcupine river to the Ramparts, where they built Rampart House, a little to the east of 142° . The astronomical position of the fort not then being known, and there existing some doubt as to its lying within British territory, it was moved twelve miles up the river, to what was supposed to be undoubtedly the eastern side of long. 141° —the international boundary. That the true position of the new Rampart House remained in doubt up to a quite recent date appears, however, from the Canadian Geological Survey map, 1890, accompanying R. G. McConnell's "Report on an exploration in the Yukon and Mackenzie Basins" (Annual Report of the Geol. Survey, N.S., vol. iv), where it is shown on the United States side of the boundary, in fact west of long. $141^{\circ} 30'$. J. H. Turner, of the United States Coast and Geodetic Survey, who made a survey of the Porcupine on the American side, in 1889, found Rampart House to be in lat. $67^{\circ} 08' N.$, and long. $141^{\circ} 46\frac{1}{2}' W.$, 'nearly twenty miles west of the boundary.' As a result of these surveys, the Hudson's Bay Company in 1890 again moved Rampart House—this time to what was unquestionably Canadian territory.

As to the exploration of the Yukon river, and the extent to

which its discovery must be credited to the Russians, it does not appear possible to accept Murray's statements, in spite of the fact that he was on the ground, and could not have had the remotest reason for exaggerating the claims of his trade rivals. Dall, Petroff, Baker, and Whympers, all of whom went carefully into this question, and had at their command the original narratives of Russian explorers, agree that the Russians did not in any event ascend the river above the mouth of the Tanana. Ivan Petroff, in his "Report on the Population, Industries and Resources of Alaska," says that Glazunof explored the Yukon (then called the Kvikhpak) as far as Nulato, in 1836. Marcus Baker, in his *Geographic Dictionary of Alaska*, gives 1837-38 as the date of this first exploration, and says that in the latter year Malakof built a blockhouse at Nulato. Elsewhere the date of this establishment is given as 1839. It was burned by the natives, and rebuilt in 1841. Nulato is about four hundred miles above the mouth of the river. In June, 1843, Zagoskin, of the Russian Navy, explored the river for some distance above Nulato, in fact, as far as the mouth of the Nowikakat. Here the hostile attitude of the natives compelled him to turn back. He afterward published a voluminous journal of his travels in the valleys of the Yukon and Kuskovim. The Nowikakat seems to have been the extreme point reached by the Russians at the time of Murray's journey. Some time after the building of Fort Yukon, Russian traders ascended the river to Nuklukayet on the west bank, a few miles below the mouth of the Tanana. Dall ("Alaska and its resources," 276-7) is of the opinion that this did not take place until about 1860; but A. H. Brooks, of the United States Geological Survey, thinks it probable that the date was about 1850. In any event, it was after, not before, Murray's visit, and the point then reached was still a long way below Fort Yukon. In a letter dated October 24, 1908, to the Geographer of the Department of the Interior, Mr. Brooks says: "The reason why the Russian traders never ascended the river above Nuklukayet is obvious—their clumsy boats would be unmanagable in the swift water which prevails through much of the Rampart region above. The same point seems to have been reached by the Hudson Bay traders, who descended the river from Fort Yukon for the purpose of barter with the natives. [This was, of course, after 1837.] If any confirma-

tory evidence were needed that the Russians were familiar with the Yukon as far as the mouth of the Tanana, it would be found in the fact that the lower Tanana natives have included a large number of Russian words in their vocabulary. As it is known that they did not descend the Yukon, they must have acquired these by contact with the Russian traders at the mouth of the Tanana.*

In view of this evidence, it does not seem possible to accept Murray's statements, positive though they are, that the Russians had explored the Yukon, not only to the mouth of the Porcupine, but even to the headwaters of the Yukon, before John Bell or Robert Campbell appeared on the scene. Murray's information was obtained from the natives, through an interpreter, and it is probable that he, or they, may have unwittingly credited to the Russians the explorations which Campbell had been carrying forward on the Liard and Pelly rivers. In any event, Murray's evidence cannot be accepted as sufficiently conclusive to take from Campbell the honour of discovering and exploring the Yukon from its upper waters to the mouth of the Porcupine.

The narrative of Campbell's explorations is contained in a pamphlet, "The Discovery and Exploration of the Youcon [Pelly] River," published at Winnipeg, in 1885, and this is supplemented by information obtained from him by the late Dr. George M. Dawson, and embodied in the latter's "Report on an Exploration in the Yukon District" (Geol. Survey Report, N.S., Vol. III). From these sources it appears that in May, 1840, Campbell left Fort Halkett, on the Lower Liard, and ascended that river to a lake which he named Frances, in honour of Lady Simpson. Shouldering blankets and guns, Campbell and his men ascended the valley of a river which they traced to its source in a lake named by him Finlayson's. From here he struck across to the Pelly, so named by Campbell in honour of Governor Pelly of the Hudson's Bay Company. In 1842 Fort

* "The sketch of the river below the mouth of the Porcupine (on Arrowsmith's 1854 map) appears to have been due to the Hudson Bay Company's traders, who, before Campbell had communicated his geographical information in London, in 1853, had already met the Russian traders at the mouth of the Tanana. Much later, in 1863, I. S. Lukeen, of the Russian Trading Company, ascended the river to the Hudson Bay post, Fort Yukon, at the mouth of the Porcupine.—G. M. Dawson. "Yukon District," Geol. Survey, 1887-8.

Pelly Banks was built, and in June of the following year Campbell descended the Pelly to the mouth of a stream which he named the Lewes, after John Lee Lewes, of the Hudson's Bay Company, when the hostility of the natives forced him to turn back. In June, 1848, he returned and built a fort at the confluence of the Pelly and Lewes rivers, which he named Fort Selkirk. Two years later he continued his exploration of the Yukon down to Fort Yukon, where Murray was still stationed, and with him ascended the Porcupine, to Lapierre House. Crossing the mountains to Fort McPherson, he finally ascended the Mackenzie and reached Fort Simpson—to the astonishment of the officers of the post, the belief never having been entertained that the Pelly and the Yukon were one and the same river, and that a water communication existed from the Mackenzie up the Liard, down the Pelly and Yukon, and up the Porcupine to Mackenzie waters again.

After the establishment of Fort Yukon in 1847, and Campbell's demonstration of the fact that the Porcupine furnished an easier road to the Yukon country than that by way of the Liard, the Porcupine became the regular trade route from the Mackenzie to the Yukon posts. Nothing in the way of geographical knowledge was, however, added to the meagre records of Bell's exploration, until 1888, when R. G. McConnell, of the Geological Survey, went over the same ground covered by Bell and later by Murray. A detailed account of this journey is given in his "Report on an Exploration in the Yukon and Mackenzie Basins," Geol. Survey, N.S., Vol. IV.

It is clear from this Journal, as well as from the statements of Roderick MacFarlane, who knew him intimately, that Murray was a man of education and taste, as well as a shrewd and successful fur-trader. Not the least of his achievements was the production of the series of spirited sketches accompanying this Journal, drawn in the midst of engrossing duties, under very difficult circumstances, and with no more effective appliances than 'a few steel pens now going on their third year and filed down to stumps.' Some of these sketches will at once be familiar to readers of Sir John Richardson's "Arctic Searching Expedition," where they are reproduced in colour.

Richardson carried on a correspondence with Murray, several of whose letters are quoted in his book. He also makes

constant use of the Journal, which was placed at his disposal at Fort Simpson, by Chief Factor McPherson. According to Richardson, Murray intended exploring a portion of the Yukon below the fort, in 1850. 'It was probably,' says Richardson, 'the report of his party having been seen which induced Captain Collinson to land Lieutenant Barnard and Mr. Adams at Fort Michaelowsky, that they might ascertain who the white men were.' This exploration may have been carried out before Murray left with Campbell for Lapierre House, in that year, but no direct evidence is available, and the fact itself appears questionable.

The following letters from Murray to Richardson may properly be inserted here, as supplementing the present Journal:—

In May, 1850, he writes from Fort Yukon: 'My account of the course of this river, also a sort of chart I made of it from the description given by the Indians, might perhaps lead you to have a wrong impression respecting the mouth of the river. I am now convinced that it is not the same with the Colville, and I have for some years suspected that its mouth lay to the west. The Russians have come up the lower part of the river regularly for some seasons. I was at first informed that they entered it from another river, but I am now told positively by Indians who went down and met them last summer that they come into it direct from the sea. By one of these Indians I received a letter from the Russians, which, being in their own language, is unintelligible to me. Salmon and hook-nosed trout (*Salmo scouleri*) ascend the river, but are not found in the Mackenzie, or rivers falling into the Arctic sea. Again, I have made frequent inquiries of the 'Gens du large,' or the northern Indians, who visit the Arctic sea coast, and find that they are unacquainted with the mouth of the river. For two winter days' walking below the Porcupine, the Yukon trends to the west and southwest, and the natives say that it flows on in the same direction. I am therefore inclined to believe that the Colville is a smaller river, and that the Yukon empties its waters into Norton Sound.'

In another letter, Murray gives the following interesting particulars as to the arrivals of water fowl in the valley of the Yukon: 'Of the two kinds of swan, only the largest sort

(*Cygnus buccinator*) are seen here; they pass on to the northward of the Porcupine river, to breed among the lakes. Bustards (i.e. Canada geese) are plentiful, and breed everywhere, from Council Bluffs on the Missouri to the vicinity of the Polar sea. On the ramparts of Porcupine river they frequently build high up among the rocks, where one would suppose only hawks and ravens would have their nests. How they take their young down is unknown to me, but they must be carried somehow. Ravens and large gulls are very destructive to young geese. With respect to the breeding quarters of the laughing geese (*Anser albifrons*), I am able to inform you correctly, having myself seen a few of their nests; and, since the receipt of your letter, made further inquiry among the northern Indians. Their nests are built on the edges of swamps and lakes, throughout most of the country north of the Porcupine, where the ground is marshy. It is only near the most northerly bends of that river that they are seen in the breeding season, and these are male birds. They pass to their breeding places in the beginning of June, and make their nests among long grass or small bushes, where they are not easily seen. They are shy birds when hatching; and, when any one comes near the nest, manage to escape unperceived, and then show themselves at a distance, and manœuvre like grouse to lead the intruder away from the place. Notwithstanding our ruthless habit of collecting eggs of all kinds to vary our diet, I have often felt for a laughing goose, whose anxiety for the safety of its eggs was frequently the means of revealing to us the situation of its nest. When the bird was swimming some hundreds of yards off, immediately that any person in walking round the lake came near its treasure, the poor bird began to make short, impatient turns in the water, resuming her calm demeanour if the intruder passed the nest without seeing it. As soon as the eggs are taken, the goose rises out of the water and flies close to the head of the captor, uttering a frightened and pitiful cry. These geese are more numerous in the valley of the Yukon than any other kind, and the numbers that pass northwards there are perhaps equal to that of all the other species together. The Gens du large (*Neyetse-kutchin*) who visit the north coast regularly to traffic with the Eskimos, say that they have never seen any flying northwards over the sea in that quarter. White geese (snow

geese, *Chen myperboreus*) are also passengers here, and there are likewise black geese, which I presume you have never seen. A few of them pass down Peel's river, but they are more abundant on the Yukon. They are very handsome birds, considerably smaller than the white geese, and have a dark brown or brownish black colour, with a white ring round the neck, the head and bill having the shape of that of the bustard. ('This description,' says Richardson, 'applies pretty well to the brent goose, *Anser bernicla*.') The black geese are the least numerous and the latest that arrive here. They fly in large flocks with remarkable velocity, and generally pass on without remaining, as the others do, some days to feed. When they alight, it is always in the water; and if they wish to land, they swim ashore. They are very fat, and their flesh has an oily and rather disagreeable taste. Bustards, laughing geese, ducks, and large gulls make their appearance here from the 27th to the 29th of April. Snow geese and black geese about the 15th or 16th of May, when the other kinds become plentiful. They have mostly passed by the end of the month, though some, especially the bustards, are seen in June. The white geese and black geese breed only on the shores of the Arctic Sea. They return in September and early in October, flying high, and seldom halting.'

Richardson also obtained from Murray the following vocabulary:—

VOCABULARY OF THE KUTCHIN OF THE YUKON OR KUTCHI-KUTCHI.

DRAWN UP BY MR. MURRAY.

ENGLISH.	<i>Animals.</i>	KUTCHIN.
A bear.....		so.
grizzly bear.....		si-i.
beaver.....		se.
red fox.....		na-kath.
black fox.....		nakath-barhata-niliz-ze.
cross fox.....		nakath-so.
white fox (arctic).		etchi-a-thwi.
Canada lynx.		ni-itchi.
marten.....		tsu-ko.
mink.....		tchith-ei.
otter.....		tsu-e.
musquash.....		tzenn.
wolf.....		zo.
hare (American)		ke.
wolverine.....		lekh-ethu-e.
seal.....		nat-tchuk.
moose deer.....		tin-djuke.
reindeer.....		bet-zey.
goose		kre.
swan.		ta-arr-zyne.
crane.....		che-a.
duck.....		tet-sun.
grouse.....		akh-tail.
fish, a salmon		tleukh-ko.
white-fish (Coregonus)		tleukh-ko-tak-hei.
pike.....		alle-ti-in.
blue-fish (grayling)		rsi-tcha.
methy (Lota)		che-tlukh.

Trading Goods.

An awl.....	tha.
An axe.....	ta-e.
Beads.....	nak-kai-e.
A belt.....	tho.
A blanket.....	tselta.
A tobacco-box.....	tseltrow-ti-ak.
Buttons.....	yei-kai-thit-le.
A cap.....	tsa-kol-u.
A bonnet.....	tsa-til-ek-ha.
A capot or coat	ik.
A duffle coat.....	chai-ik.
A chisel.....	so-it-se.
A comb.....	tcheir-zug.
A dagger.....	nil-ei-sho.
A file.....	kuk-i.
Tape gartering	lekath-at-hai-e.
A looking-glass	mutchai-e-i-a.
A gun.....	te-egga.
A gun-flint.....	bech-tsi.
A gun-worm	koggo-te.
Gunpowder.....	tegga-kon.

VOCABULARY—Continued.

ENGLISH.

KUTCHIN.

Trading Goods.

A powder-horn.....	a-ki-itche.
A kettle.....	thi-a.
A knife.....	r'si.
A ring.....	ilat-thekk.
A shirt.....	azu-e-i-ek.
A small shot.....	tegga-atsil.
A ball.....	tegga-atcho.
A fire-steel.....	il-i-a.
Cloth.....	athit-li.
Thread.....	athit-li-itchi.
Tobacco.....	se'ei-i-ti-it.
Trowsers.....	illei-ik.
Vermilion.....	tingi-ta-tseikh.

Miscellaneous.

A tree.....	tetch-hau.
A willow.....	kai-i.
Grass.....	tlo.
The ground.....	nunn.
Water.....	tchu.
A river.....	han.
A lake.....	van.
Rain.....	akh-tsin.
Warm.....	konni-etha.
Cold.....	konni-eka.
Hungry.....	sei-ze-kwetsik.
Fatigued.....	kei-a-sethelth-krei.
Sick.....	eth-ill-seyk.
A mountain.....	tha.
A valley.....	kra-tanne.
The sun.....	r'sey-e.
The stars.....	thun.
A rock.....	tchi.
A house or fort.....	izze.
A lodge or tent.....	ni-ti-a.
A bow.....	alt-heikh.
An arrow.....	ki-e.
A canoe.....	tri.
Good.....	neir-zi.
Bad.....	bets-he-te.
Day.....	tzin.
Night.....	tatha.
Sleep.....	nokh-tchi.
Rest.....	tuggath-illa-e.
To sit.....	tchith-u-etcha.
To walk.....	ka-whot-el.
To run.....	sha-tocha.
To shoot.....	at-el-ke.
To kill.....	beshei-en-i-echa.
A man.....	tenghi.
A woman.....	tren-djo.
A boy.....	tse-a.
A girl.....	mitchet-ei.
A dog.....	tleine.
A sled.....	latchan-vuñl.

VOCABULARY—*Concluded.*

ENGLISH.	KUTCHIN.
1.....	tih-lagga.
2.....	nak-hei.
3.....	thi-eka.
4.....	Tan-na.
5.....	illa-kon-elei.
6.....	neekhki-et-hei.
7.....	ataitsa-newk-he.
8.....	nak-hei-etan-na.
9.....	nuntcha-niko.
10.....	tikh-lagga-chow-et-hi-en.
11.....	tikh-lagga-mik-ki-tagga.
12.....	nak-hei-mikki-tagga.
13.....	thi-eka-mikki-tagga.
14.....	tanna-mikki-tagga.
15.....	ilakon-elei-mikki-tagga.
20.....	nak-how-chow-ethi-en.
21.....	nak-how-chow-ethi-in-unsla-tikh-lagga.
30.....	thi-eka-chow-ethi-en.
40.....	tanna-ha-chow-ethi-en.
50.....	atla-konelei-chow-ethi-en.
60.....	nikh-ki-at-hei-chow-ethi-en.
70.....	atait-sa.
80.....	nich-ki-etanna-chow-ethi-en.
90.....	muntcha-niko-chow-ethi-en.
100.....	tikh-lagga-chow-ethi-en-chow-ethi-en.
200.....	nak-kaggo-chow-ethi-en-chow-ethi-en.
300.....	thi-eka-chow-ethi-en-chow-ethi-en.

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JOURNAL.

YOUCON¹, May 1848.

(Private)

DEAR SIR,—When I left Fort Simpson, you requested me to send you, at this time, a ‘full and particular account of M. Yonom,’² and as everything connected with this remote corner of the globe will be interesting, I mean for *once* to send you *perhaps* a longer letter than you ever received even from the West Branch; but I must not attempt to compete with my more gifted contemporaries of that ‘verdant’ and ‘flowery’ land in portraying with ‘language poetical’ the beauties of the country, the ‘panoramic views,’ etc., etc., not that I am devoid of feelings of admiration for the ‘sublime and beautiful,’ but that the Arctic regions have few such attractions. I purpose simply to give you a plain but faithful account of all that I consider will (be) of interest or importance in connection with the object for which I was sent here; but I find that I have delayed this duty too long, the season is approaching when one must prepare for the return voyage, and there is so much to occupy my attention otherwise, that I must needs write more hurriedly than I could wish.

You also requested me to send you some drawings of the country, and as now I am altogether unprovided with either drawing paper or pencils, and cannot comply in full with that request, a few steel pens now going on their *third year*, and filed down to *stumps* are all my store, and must answer for every purpose, and to ‘do up’ a landscape with them is beyond my humble powers; therefore, you must be content with the

1. Youcon is one of several variants of the name, now settled as Yukon, that form having been adopted by both the Canadian and American Boards on Geographic Names. The name was first applied by John Bell, of the Hudson’s Bay Company, in 1846, as he understood it from the Indians. It was long known by its Eskimo name, Kwik-pak (big river). See George M. Dawson’s Report on the Yukon District, Geol. Survey, 1887-8, 14-16 B; Marcus Baker’s Geographic Dictionary of Alaska, under title Yukon.

2. Obviously should read ‘the Youcon.’

few rough sketches that may be interspersed throughout these pages.

I have appropriated a *book* for this *letter*, and as it must be filled up with 'something or other,' I give you my journal of the voyage to the Youcon in full, although it may be to you, what Johnson's Dictionary was to Mr. Peniel, '*gr [and] dry readin*,' still the [courses]¹ and distances may be of consequence—but I will not occupy your time or my own with any further prefatory remarks.

Allow me to introduce you to the starting point—Peels River.²

Fort Macpherson.³ From the batture in front, June, 1847. There is the Fort as it was a year ago, but I may promise looking much better on paper than it does in reality, coarse as the sketch is.

VOYAGE FROM PEELS RIVER TO THE YOUCON.

We commenced the journey to 'Lapiers House' on the 11th of June '47. My party consisted of Mr. A. McKenzie,⁴ eight men and one woman, accompanied by two of the P. River men and four Indians to assist in carrying part of the things, particularly the potatoes and [barley]⁵ you sent for seed, and an

1. This and the preceding emendation are conjectural, supplying illegible words in the MS.

2. Named by Sir John Franklin after Sir Robert Peel. It was first visited by Franklin on returning from his second overland expedition to the Arctic. Explored by Bell in 1839; and in 1840-41 by A. K. Isbister, also an officer of the H. B. Company. A more extensive exploration was carried out by Count V. E. de Sainville in 1893; and in 1905 C. Camsell, of the Geological Survey, made a complete survey of the river. See Isbister's account of his own and Bell's explorations, in the Royal Geographical Journal, Vol. XV; and Camsell's Report on the Peel River and Tributaries, Geological Survey, 1904. Also Geological Survey, 1888-9, 114D.

3. Built by Bell, for the Hudson's Bay Company, in 1840. Named after Chief Factor Murdo, or Murdock, McPherson. It is still maintained by the Company, and is their most northerly establishment. Stands on the east bank of Peel river. See Camsell's Report, 36CC. The description that follows, in the text, refers to this illustration.

4. Alexander McKenzie. Several of this name were at one time or another in the fur trade, without counting the great explorer who gave his name to the Mackenzie river. This particular Alexander was a clerk in the Hudson's Bay Company's service. He is probably the same Alexander Mackenzie mentioned in Mair and Macfarlane's 'Mackenzie Basin,' as having been stationed at Fort Resolution 1860-62.

5. Probably should read 'barley,' which it elsewhere appears Murray brought with him.

extra bag of Pemican,¹ across the mountains: the Loncheux² Indian 'Vandeh' previously engaged as Fort Hunter, and Interpreter to the 'Gens du fou,'³ left at the same time with his two wives and two children; he received some dried meat to take them to Lapiers House, after which he was to provide for himself and family.

The mens loads being weighed and all in readiness, we left at the appointed hour 7 a.m., and were ferried across in the boat to the west side of the river about a mile below the Fort. The customary adieus and 'God bless yous' having been duly exchanged between us and our remaining friends, we shouldered our packs, and, preceded by an Indian guide, struck into the labyrinth of swamps and lakes that lay between us and the distant hills; the whole of this flat, low, about four miles broad and extending to the McKenzie, was overflowed by the river in May, and now in an almost impassable state. We waded most of the way knee deep, but often to the middle in sludge and water, the day was clear and warm, and the mosquitos had already begun their ravages, which rendered the commencement of the voyage anything but pleasant. In three hours we cleared the 'slough of dispond,' and another hour brought us to the top of hills nearest to Peels River, where we rested for awhile and partook of some pemican and moss water. The party being now assembled and fairly 'en route' in the open country, I cautioned them to be careful of the company's property, that each was responsible for what he carried, advised them not to separate on the way, and left instructions with Mr. McKenzie to look after things in general. I then started ahead with Manuel, the best walker amongst the men, and an Indian not so heavily loaded as the others, intending to reach L. P. House in three days, so as to have my letters answered and things in

1. For an account of the method of making pemmican, and the materials employed, see Paul Kane's 'Wanderings of an Artist among the Indians of North America,' p. 78.

2. First mentioned by Sir Alexander Mackenzie, in his journey down the Mackenzie in 1789. Sir John Richardson describes them briefly, but credits most of the information he gives to Bell and Murray. See his 'Arctic Searching Expedition,' ch. xii. Also Isbister, in Rep. of Brit. Ass., 1847, p. 122. The Loucheux are of Athapaskan stock.

3. 'The Tathzey-kutchi, "people of the ramparts," known to the traders and Canadian voyagers by the name of "Gens du Fou" . . . inhabit a wide country, which extends from the sources of the Porcupine and Peel to those of the River of the Mountain Men.' Richardson, I, 398.

order, that the voyage might not be delayed on that account. The men each carried 40 lbs. exclusive of their provisions, loaded quite enough for the trip at this season of the year. We kept on at a strong pace for a few hours, until the Indian became *fagged*, and expressed his inability to proceed with the load he carried, having only my own things, not so much as the others, I relieved him of his blanket, after which we got on better. Although now on high land and gradually ascending sloping hills, the ground was completely saturated with water, very little vegetation appeared, tufts of heath and moss thinly interspersed on a bottom of soft mud, but only thrived about 6 inches from the surface, passed a range of small lakes extending toward the north, they were only open around the sides, the ice in the centre appearing quite solid. Several large flocks of geese were seen here, but we were too hurried to go after them. On the banks of a rapid mountain stream, we found a few dwarf pines, made a fire and intended camping for the night, but after eating, and smoking of course, we felt refreshed and pursued our journey. It was past 10 o'clock before we reached a place with sufficient *brush* to make a fire, and had some difficulty in finding a spot dry enough whereon to sit. Each picked out his own moss knole, and rolled up in his blanket composed himself to sleep. We came only about 25 miles to-day in a westerly course, and to the north of the winter route.¹

12th. Although stiff in the joints and otherwise fatigued I could sleep little, from my moss bed having sunk into the water, and from a severe attack of heartburn occasioned by eating the raw pemican which generally disagrees with my stomach. I was therefore up early, and shot a brace of² for my own breakfast before the others awoke, we were 'on foot' about

1. R. G. McConnell followed substantially the same route, from Fort McPherson to Lapierre House, in 1888. 'The walking' he says 'is exceedingly difficult, as the surface is covered with the rounded grassy sods which go in the country by the name of *Tetes des femmes*.' These troublesome mounds are found in a wide plain which stretches to the foot of the mountains. McConnell says the portage from Fort McPherson to Lapierre House is about sixty miles long; that four to five days are occupied in the trip; that the ordinary load for an Indian on this portage is forty pounds, exclusive of blanket and supplies for the trip; and that the tariff for this load is fifteen skins, or seven dollars and a half, paid in goods. Geol. Survey, 1888-9, 116-17.

2. MS illegible. Probably should read 'partridge' or 'ptarmigan,' which are found all through this country.

the same time as yesterday, and meeting with few impediments, made a good distance before breakfast, saw several fine deer, and came close upon one on rounding a small hill, but our guns being charged with small shot the chance was lost. The ground became much firmer as we approached the Rocky Mountains, now before us, and although the ascent was greater, the walking was not nearly so fatiguing as yesterday, the hills are covered with tolerable pasture and partridge and cranberries very plentiful. Towards noon we reached the base of the ridge of mountains, spread out our blankets to dry and took a short *nap* in the heat of the day, preferring to walk during night, when, although the sun is always shining at this season, it is cool. Again refreshed, we began to ascend the mountains, by a 'zig-sag' route amongst the rocks and snow banks, and in three hours arrived at the summit. Although calm and oppressively hot below, we had here a cooling breeze, the view of the surrounding country was very extensive, but not particularly striking, nothing but a continuation of barren mountains before us and on each hand,¹ behind me lay the undulating country we had passed, the highest mountain to be seen here is about 6 miles to the south the bearings of which I took from Peels River as a landmark in winter; the descent on the west side was accomplished in less time, slipping, scrambling and tumbling over rocks and loose stones, and often assisted by a slide down a snow bank, the bottom was reached in safety, with the exception of a few slight bruises. We now joined that part of the winter route known as the 'Barren tranise,'² here every place that could contain water was flooded, every snow bank sent forth a stream, what appeared in winter to be diminutive brooks, were now foaming rivers, several of these intersected our path and caused some detention. The last proved the most formidable, where broad, the current was too strong, where narrow too deep, we followed up stream some distance before reaching a place that appeared *fordable*, and we determined to go no further. Manuel was the first to make the attempt, and slowly committed himself to the water, while the Indian and I held on to the collar of his capot, he was just on the point of

1. 'The enclosing mountains,' says McConnell, 'are regular in outline and somewhat tame in appearance, and rise to elevations above the valley from one thousand to two thousand five hundred feet.'

2. So this copy reads; obviously should be 'barren traverse.'

being hauled up as a *hopeless case*, when the bottom was reached, breast deep, and he was able to stand against the current. We followed in succession and got a thorough soaking in snow water, a smart walk soon brought heat into our shivering bodies, but I was greatly mystified¹ at the loss of a lot of Percussion caps in my waistcoat pocket, rendered useless by the water, for gun caps are scarce in this country. Several small bands of Rein deer² were seen on this [river], which appears to be a favorite resort of theirs, during winter they are always to be found here. Plovers and White Partridges (a wrong name for the latter at this season, with their summer plumage they have more the appearance of geese)³ were plentiful, and two brace were shot, some of their nests were also found, and the eggs of course we devoured raw. On arriving at the *chute*, a pass in the rocks, where the sleds and dogs have to be lowered over with lines in winter, we found it now a roaring cataract, and the rocks on each side impassable. We had therefore to ascend the hills and keep to the right for two miles further, when the bottom was reached with all speed, a few tumbles over rocks as before, and an 'almighty' slide down an almost perpendicular snow bank, landed us far into the willows at the bottom. We followed down the banks of the stream⁴ until completely tired, and camped at 2 o'clock in the morning, where there was plenty of dry wood, undressed and dried our clothes, and supped in comfort on partridge and pemican. The distance walked to-day *might* be 28 or 30 miles.

12th.⁵ Started at 10 o'clock and soon arrived at *Bells River*,⁶ well known for its rapid current at this season. I had frequently

1. Apparently this is an error in copy for 'mortified.'

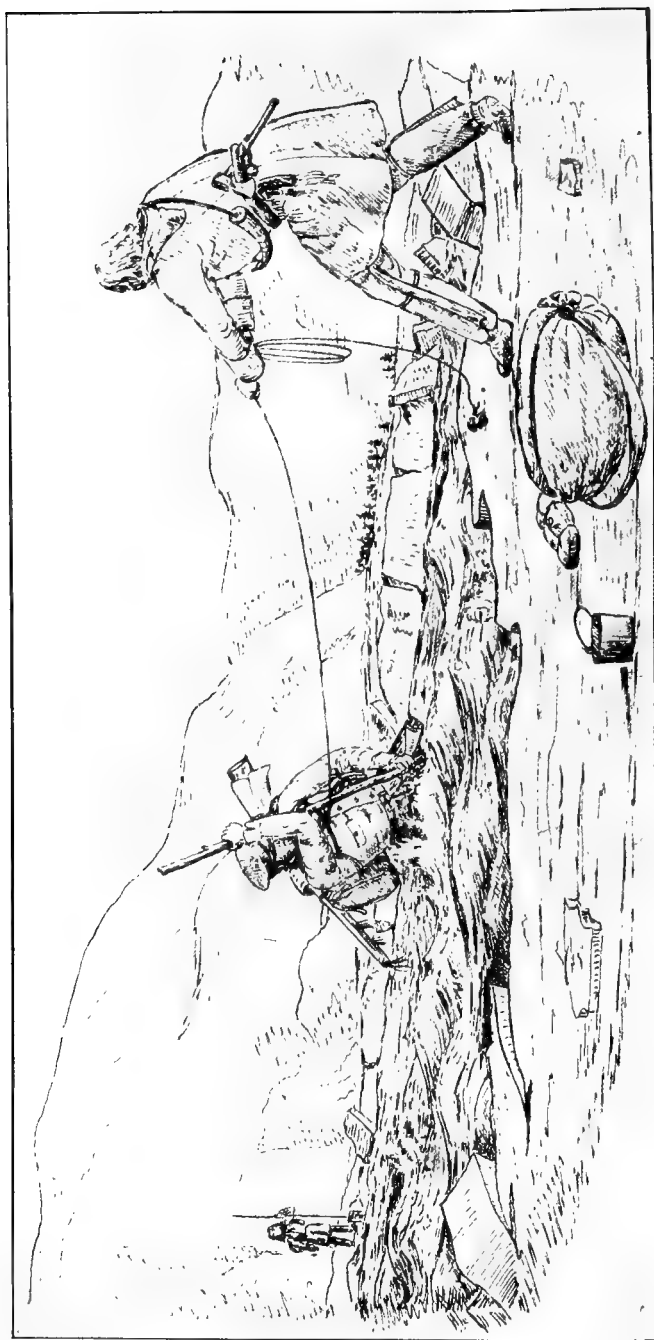
2. 'Caribou,' says Camsell (Geol. Survey, 1904, 47CC), 'are plentiful everywhere in the vicinity of the mountain ranges (in the Peel River country), some being found on the plateau.'

3. i.e., grouse.

4. The same branch of Bell river described by McConnell in his report, 118D. Murray was unable to cross one of the mountain streams entering this branch from the north; he, therefore, turned up its east bank and crossed two miles higher up.

5. Should read '13th.'

6. Named after John Bell, who first explored its main waters in 1839. See McConnell's description of the river, Geol. Survey, 1888-9, 121D. Bell river rises in the height of land, not far from the source of Rat river, and joins the Porcupine about 137° 30'. The confusion in nomenclature arises from the fact that the name 'Bell' was applied in Murray's day to the branch of present Bell river, while present Bell river was



Crossing Bell River.

heard of the difficulties in crossing in the spring, but was not prepared to find it so very high as it now was: we each cut a strong pole to assist in stemming the current, and several vain attempts were made at different places: following up along the banks, fresh foot prints on the sand led us to a broader place, where a pole, yet wet, was discovered: an Indian, as we afterwards ascertained had crossed in the night on his way to the Fort. But the river had risen much since, for no human being could withstand the force of the current now. A raft was proposed, but again disapproved of as being most dangerous from the quantity of ice running, and so many rocks in the river. There appeared no alternative but to follow up the river though we should go to its source, which strange as it may seem, was the same deep stream we crossed yesterday, but takes a circuitous course of perhaps 20 miles amongst the mountains to the north. The hills were again mounted, and continuing along the ridge for some time we had a good view of the river above, about two miles further up it separated into two channels, and appeared from the height to be blocked with ice. Our steps were bent thither, and fortunately we got safely on the main channel on a bridge of ice; the other channel being *free*, and appearing short, Manuel who had the *lead*, entered it without hesitation, and got about two-thirds across when it became too deep and rapid, on attempting to turn, his pole gave way and he was carried down stream, most fortunately the current set in to the opposite bank, and after rolling him once or twice over he scrambled ashore, with the loss of his gun and bonnet. Had he been carried a few feet farther down, the ice banks were high and the current stronger, and he must have perished. I did not till now remember that the 'lumber line' for the new boat was in the Indian's parcel, with it I was safe, having secured my gun and pistols to my shoulders, I fastened the one end of the line around my body, and attached a small stone to the other, which, before entering the strongest of the current, was flung across to Manuel, so that I might be brought up like a log on the other side, but I managed with the assistance of a strong pole to get over without being carried down. The

then known as Rat river. There were in fact two Rat rivers, rising in the same neighbourhood, one flowing into the Porcupine, the other into the Mackenzie. Richardson calls the former Western Rat river. See McConnell, 115D, on this double use of the name.

Indian not admiring this method, refused to make a trial, he went further up, and crossed with less difficulty at a much broader place.¹

Ourselves safe, my thoughts reverted to those behind, but as they were accompanied by some Rat Indians² who knew the river well, our remaining here would be of little advantage. Being now some 7 or 8 miles above the usual route, we intended making a 'bee line' for the houses, and 'Tarshee' the Indian undertook to be our guide. The whole afternoon was spent in wandering amongst the mountains; not finding an outlet, we climbed to the top of one, but there was no possibility of proceeding further in that direction, nothing to be seen but towering mountains and fearful precipices, and deep ravines covered with eternal snow. There were no 'verdant hills' here, not a vestage of animation appeared in this desolate region. It was now late, but we looked in vain for a place to camp, all of us being fatigued, our clothes saturated with perspiration and Manuel completely drenched with water, we preferred sleeping by a good fire to shivering up here amongst the rocks, it was therefore decided to 'make tracks' down the first valley, we followed its course and arrived again on the banks of Bells River only a short distance below where we crossed; the ground was wet, but there were plenty of trees and a good encampment was made as in winter. None of us were in good humor, Manuel for the loss of his gun and bonnet, 'Tarshee' for losing his way in the mountains, and myself for the loss of a day, for I expected to have slept at Lapiers House, and here we were farther by a few miles than last night's encampment; but there was one consolation, the river was crossed and no obstruction now lay before us by following the usual track.

1. McConnell's description of the ford and how it is crossed bears out all that Murray here says. 'The ford,' he says, 'is a difficult one, as the stream is here deep and rapid, and its channel is paved with treacherous quartzite boulders. The greatest caution is necessary in crossing, as a stumble or false step would almost certainly be fatal to one encumbered with a heavy pack. In fording these swift mountain torrents, it is customary to adopt a communistic plan. The party line up behind a long pole, and keeping a firm hold of it, advance into the stream abreast. In this case the person above sustains the full brunt of the current, but is held up by those below, and a stumbler receives the support of those who have kept their footing.' Geol. Survey, 1888-9, 119D.

2. Rat Indians, i.e., Rat River Indians. Elsewhere Murray refers to these Indians, of whom 'Grand Blanc' was chief, as the Youcon Indians.

14th. Certain of reaching the houses to-day, we did not again attempt the mountain, but kept along the west bank of the river to the *fork*, where it takes a south west course which also was ours. The low ground was very wet, and we preferred walking along the sides of the mountains, (here less rocky and more sloping than those before passed) until we joined the beaten Indian track, which led us to the west over a long stretch of hilly and marchy ground, and laterly through several miles of willows, small birch and poplar trees. On emerging from this thicket we stood on the brow of a steep hill overlooking the valley of Rat River, the view here, although of a different description, was almost equal to that on the west side of Portage La Loche.¹

Had the bleak and 'snow capped' mountains which bounded the valley on each side, been covered with *heather*, the marchy ground below us, through which the river wandered, covered with green fields, and the stunted pines to 'spreading oaks,' it would have been greatly enhanced in my estimation. The blue smoke curling upwards from the clump of dark pines far away in the hollow, had a fine effect on the scene, but a still finer effect on my spirits, for by it I knew that our people were alive and the houses safe. Although there was no *great* danger, still I had not heard from them for some time, and knowing the aversion of the Rat Indians under 'Grand Blanc' to our going to the Youcon, and the reported threats of the 'Gens du fou' to burn the houses, I could not be without anxiety. Another hour's smart walking brought us opposite the houses, where our anxious friends, who had long before discerned our approach were waiting, and took us over the river in the boat. We arrived at Lapiers House² at $\frac{1}{2}$ past 4 p.m., where I was wel-

1. Portage la Loche, or Methye Portage, leading from Churchill waters into the Clearwater, and so to the Athabaska, Mackenzie and Peace river systems. This portage was not only a vital link in the vast network of water communications—the highways of the western fur-trade, but was and is one of the most beautiful spots in America. It has been described with enthusiasm by scores of travellers, from Alexander Mackenzie down. See Back's account, in his 'Arctic Land Expedition,' p. 71, and his delightful sketch, forming one of the illustrations in Franklin's 'Polar Sea.'

2. Lapiere House, built originally as an outpost of Fort McPherson, and, after the establishment of Fort Yukon, used in connection with the shipment of supplies and furs to and from the Yukon. McConnell

came by Mrs. Murray, who, with the woman and three men stationed there, I found well. They had passed the spring as comfortably as could be expected, been well supplied with meat by the 'Mourmour' and 'Thief' the two Indians appointed to hunt deer for the place. Once more alongside of my young wife, before a table well replenished with venison steaks, and the usual accompaniments, the fatigues of the journey were soon forgotten.

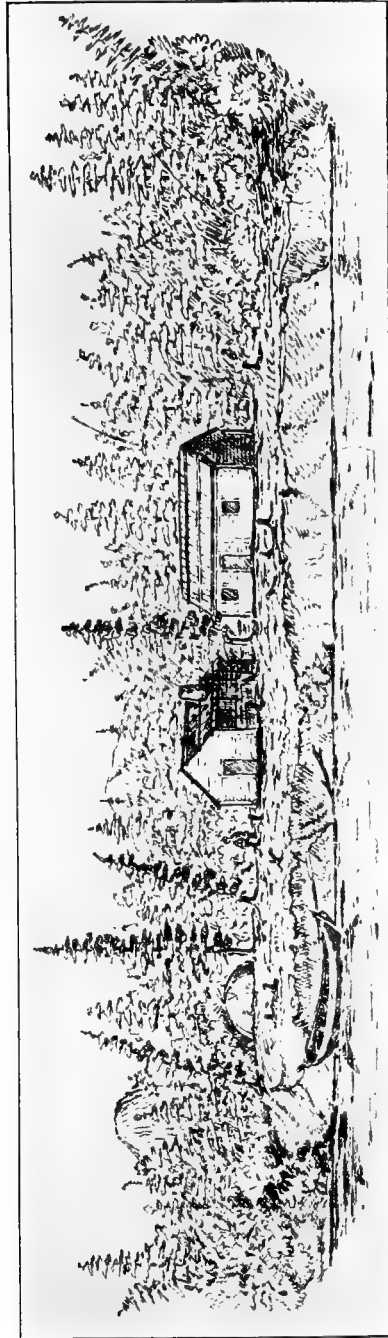
15th. On looking around this morning I found the work, for which orders were left in spring, all completed: the boat (named the 'Pioneer') built and ready launched, oars etc made, Mr. Bells¹ old.....² repaired for the Indian and his family, the stern covered with bark, doors made, and everything in good order under the management of Inkstir the boat builder. Part of the forenoon was spent in talking with five Indians, all the way from the Youcon, whom I found here awaiting our arrival, they had been up towards the source of *Porcupine river*³ trading furs from the 'Gens du fou,' from whom they heard of our going to the Youcon this summer, the several messages sent by the Rat Indians had not been delivered, and none of those in the Youcon expected us, and had of course collected no provisions. From these Indians I heard of the Russians being at the Youcon the previous summer, the particulars of which I

describes the post as it was in 1888 (Geol. Survey, 1888-9, 121D), and says it had then been in existence about thirty-five years. It has since been abandoned by the H. B. Co. Lapierre House stood in Murray's day on the branch of present Bell river which then bore that name. It was afterward moved to the main stream, where its location is shown on McConnell's map.

1. John Bell, chief trader in the Hudson's Bay Company. His explorations have already been referred to. Sir John Richardson obtained from him much of the information as to lower Mackenzie River country and its natives, embodied in his 'Arctic Searching Expedition.' Writing in 1847, Richardson says that Bell had then 'resided many years on the Mackenzie.' Bell married a daughter of Peter Warren Dease, the Arctic explorer. He was stationed at Fort Good Hope in 1837.

2. Probably 'canoe.'

3. 'The Porcupine heads within thirty miles of the Pelly-Yukon, approximately in latitude 65° 30' N., and after describing a great semi-circular curve to the northeast, falls into the same river a hundred and fifty miles farther down. At its most easterly point it approaches within eighty miles of the Mackenzie, but is separated from it by the main range of the Rocky mountains. Its total length approximates to five hundred miles.' McConnell, Geol. Survey, 1888-9, 122D.



Lapierre House.

then informed you. Here were Indians at L. P. House, supplied with Russian goods principally *Beads*, and taking the furs from almost before our doors, intending to dispose of them to the Russians in the Youcon this summer, surely the H. B. Co. can supply *Beads* and the articles that Indians require as well as the R. A. T. Co.,¹ but I will have something to say on this subject hereafter. These Indians had, besides a few Beaver 81 *skins* in Martens for which they demanded Beads and Guns, I could not open out my goods here, but persuaded them to dispose of their peltries to the Indians here, which they did next day for guns and ammunition, and the furs went to Peels River.² This being a clear day I had a good opportunity of ascertaining the variation of the compas, by a meridian line, my only method, and found it to vary *scarcely* 47 degrees east, at Peels River it is 48 degrees. I brought the boat compas here on my first trip in April, had it placed in the end of my sled—for I drive a loaded train—and took the bearings of the numerous turnings and windings of the winter route, calculating the distance by our rate of walking and the time occupied in each course.

COURSES AND DISTANCES OF WINTER TRIP FROM PEELS RIVER.

April 2,	by the windings of the route	4	miles,	2½	miles west	
" 2,	"	"	5½	"	5	" S.W.
" 2,	"	"	8	"	6	" W.
" 3,	"	"	11	"	8	" W.
" 3,	"	"	8	"	5	" W.S.W.
" 4,	"	"	12	"	9	" W.
" 4,	"	"	1	"	1	" N.W.
" 4,	"	"	5	"	4	" W. & S.
" 4,	"	"	7	"	6	" S.W.
" 5,	"	"	7	"	0	" S.W.
" 5,	"	"	2	"	2	" W.
" 5,	"	"	6	"	5	" N.W.

I make Lapiers House to be distant from P.R., 78 miles² by the winter route, by the summer ditto *perhaps* 68 miles, not including the *lost day*, and allowing we had come the direct track. Two of the Indians accompanying our party arrived in the evening and informed us of all being safe on this side of Bells

1. Russian-American Trading Company.

2. As already noted, McConnell makes the distance sixty miles 'distant from P.R.,' that is, Peels river, or Fort McPherson.

River; they arrived there last night when the river was still too high, but it fell greatly during the night, and they crossed in the morning with little difficulty.

16th. During the day the *Youcon Pioneers* came dropping in by 'ones and twos,' and in the evening the 'rear guard,' namely John Hope and his wife, made their appearance; I was glad to see them all here in safety, but they were much fatigued and the woman completely 'knocked up' (*I believe before she left Fort Simpson*). All the things were safely received except a valuable parcel of nails, containing those for gate hinges, etc., lost by Bouche who had transferred part of his load to some of the dogs, while he went after a band of Rein Deer, I was much annoyed at this as he was told so particularly to be careful of them. Here is a sketch of the houses, but they are so closely immured in a thicket of pines, that no view can be taken to include the surrounding mountain scenery.

17th. The new private orders were made out and my writing finished, squared accounts with the Indians hunters, and arranged with a steady old 'Loucheu,' father-in-law to before mentioned 'Mourdour,' to remain in charge of the houses until fall, for which he was to be allowed a small gratuity; he was also to collect as many dry fish as possible for the winter voyaging, to be paid for at the usual rate. Gave out provisions for four days to the men, women and Indians returning to Peels River which rendered my stock of dry meat about 300 lbs. The men having had a days rest, were warned to be prepared to embark immediately after breakfast on the morrow.

18th. This being *Friday*, several hints were thrown out by the men (they no doubt expecting to be allowed another day's repose) to defer starting until Saturday, but it could not be allowed. The boat was loaded and breakfast over before embarking; we 'shoved off' at 10 o'clock with three cheers for the Youcon, responded to by the Peels River party on shore, who left on their return at the same time. A few short windings brought us to Rat River, (it is on the banks of Bells River the houses are built) distant North and West $\frac{3}{4}$ of a mile, it flows from the North, is narrow and deep with very little current. I now commence the courses and distances, with which I was as particular as possible. A 'Binnicle' made of a solid

block of wood was prepared for the compass, and fixed in the centre of the 'stern sheets' free from any attraction of the iron works of the boat etc., and the bearings of *every* turn of the river were noted, and the distance calculated by time, the rate of pulling and the strength of the current, W. 1-3 (*West 1-3 of a mile*) S.W. 1-5, W. & by S. 1-6, S. by E. 1-8, S.S.W. 1-3, S.W. 1-6, S.E. 1-6, E. by N. $\frac{1}{4}$, W. 1-3, W. by S. $\frac{1}{4}$, N.W. & by W. 1-3, N.W. 1-8, S.W. 1-3, S.E. & by S. $\frac{1}{4}$, W. & by N. 1-8, W.N.W. 1-8, N.W. & by W. 1-3, W.N.W. 1-3 (Round hills on north bank) S.W. $\frac{1}{4}$, S. 1-6, S.E. by S. $\frac{1}{4}$, S. & by E. $\frac{1}{4}$, N.E. 1-8 (Double a sharp point) S.W. 1-6, S.W. & by W. $\frac{1}{2}$, S.W. & by S. $\frac{1}{2}$, S.W. 1-6, (Small hills) S. & by W. $\frac{1}{4}$, S.E. & by S. 1-3, S.W. & by S. $\frac{1}{4}$, S.E. $\frac{1}{4}$, (S. point blanket mountain seen in front), S. $\frac{1}{4}$, (Rocky hills on left), S.E. 1-6, S.W. $\frac{1}{4}$, S. & by W. 1-6, (double sharp point) N.N.E. $\frac{1}{4}$, N.W. 1-8, S. & by W. 1-3, S. 2-3, S. & by W. 2-3, S.W. & by S. $\frac{1}{4}$, S.S.W. 1-3, S.W. $\frac{1}{4}$. A thunderstorm accompanied by heavy rain compelled us to put ashore at $\frac{1}{4}$ to 3 o'clock. The rain continuing, we embarked here for the night. The river continues narrow, deep, and sluggish, and of a most tortuous course, confined between small hills, often rocky and partly covered with small bush and pines. The banks are steep and muddy and thickly covered with willows. It is appropriately called by the Indians 'Rat River,' having the appearance of a place suitable to the habits of the musk rat. There are high mountains on each side, more particularly the north, but few could be seen from the river, the view being interrupted by intervening hills. Plenty of geese were seen, but, fond as I am of shooting, I was forced to lay my gun aside, my attention being solely occupied with my *log*, owing to the confounded short turns of the river, however a few were knocked down by W. McKenzie and some of the men. Those of the men unprovided with guns of their own, were each lent one for the trip and [given?] a little ammunition in case of meeting with hostile Indians etc. All were pleased with the qualities of the new boat, she had a fair trial on the oars and went well, and though heavily laden drew only two feet water. About 9 o'clock the weather cleared up and became much colder.

19th. A clear morning and blowing strong from the west: Started at 5 o'clock and proceeded W. $\frac{1}{4}$, N.W. $\frac{1}{4}$, (Steep hills

on right) N.W. & by W. 1-3, W. $\frac{1}{4}$, N.W. 1-6, S.W. & by W. 1-6, S.W. & by S. $\frac{1}{4}$, W. & by S. $\frac{1}{2}$, W. 2-3, S.W. & by W. $\frac{3}{4}$, W.S.W. 1-8, ('Blue Fish River'¹ enters from the south east) W.N.W. $\frac{3}{4}$, (Another sluggish river enters from the south²) N.E. & by E. $\frac{3}{4}$, double point 1-5, W. & by S. $\frac{1}{4}$, (Rocky banks on left) W. 1-3, N.W. 1-3, (left bank high and sloping, river widens, put ashore for breakfast) N.W. 1-3, N.W. & by W. 1-6, N.N.W. 1-3, N.W. $\frac{1}{4}$, W. & by N. $\frac{1}{2}$, N.W. 1-8, (small round island) N. & by E. $\frac{1}{2}$, N.N.W. $\frac{1}{4}$, (a small river enters in right) N.W. & by W. $1\frac{1}{2}$, S.W. & by W. 1-3, W. & by N. $\frac{1}{4}$, W.N.W. $\frac{1}{2}$, W. $\frac{1}{2}$, (High banks) S.W. & by W. 1, W.S.W. $\frac{1}{4}$, W. 1-3, (Range of barren mountains about 8 miles ahead) W. S.W. $\frac{1}{2}$, W. 3-4, W. & by N. 1-3, W. & by S. $\frac{3}{4}$, S.W. $\frac{1}{4}$, S. & by W. 1, S.W. & by W. 1-3, S.W. & by W. $\frac{1}{2}$, S.W. & by W. 1-6, S.W. & by S. $\frac{1}{2}$, S.W. & by W. $1\frac{1}{4}$, S.W. & by S. 1-3, S.W. 1-3, S.W. & by W. 1, W.S.W. $\frac{3}{4}$, S.W. & by W. 1, W. & by S. 2-3, S.W. $\frac{3}{4}$, W.S.W. $1\frac{3}{4}$. Where we entered the large river flowing from the south east. We were hailed by some Indians, (six men with their families) camped amongst the willows on the point, and went ashore; the five Youcon Indians who left Lapiers House the day before we did, were also here and had warned the others of our approach. They were busy preparing a feast for their Youcon visitors, to wit, a lot of musk rats, moose fat, and wild onions³ stowed in a vessel of birch bark. They had a small quantity of excellent dried meat, which was traded for ammunition and tobacco. I expected to have met the 'Grand Blanc,' their chief, with a large party hereabouts. but he had not yet returned from the mountains which pleased us quite a mite, as we might have had some trouble with him. Those here already knew of the object of our going to the Youcon, and appeared to care very little about it. I gave each a small piece of tobacco, and they promised to take provisions to the houses in fall. They commenced to dance, but we could

1. This small tributary of Bell river (now known as Rock river) must not be confused with the Blue-fish river which joins the Porcupine from the south a few miles above the head of the Ramparts.

2. Eagle river.

3. 'When at Red river,' says W. W. Kirby, 'I read a paper by Mr. [George] Barnston, on the growth of the onion on the banks of the Porcupine river, and I have much pleasure in being able to confirm his statements, that it is not the real onion, but the chive that grows in such abundance there.' Smithsonian Report, 1864, p. 420.

remain no longer, and left them 'going it' on the bank. Rat River terminates here, we now descend 'Porcupine River,'¹ (the Indian name is Chow-en-Chuke) three times the breadth of the former with a strong current and more sloping banks, W. & by N. $1\frac{3}{4}$, N.W. & by W. $2\frac{1}{2}$, N. & by W. $1\frac{1}{4}$, N.W. & by W. $1\frac{1}{2}$, N. & by W. $1\frac{1}{4}$, N.E. $\frac{1}{2}$, N.E. $\frac{1}{4}$ (High banks, lofty mountains seen in the distance to the N.E.) N.W. & by W. 1 , N.N.W. $\frac{3}{4}$, N. & by W. $\frac{3}{4}$, (Mountains on left) N.E. & by N. $\frac{3}{4}$, N.W. & by N. $\frac{1}{2}$, (Rocky hills on each side, known as the 'Small ramparts')² N.W. & by W. $\frac{1}{2}$, N.N.E. $1\frac{1}{4}$, N.N.W. $3\frac{1}{4}$, W. 1 , W.S.W. $1\frac{1}{4}$. We camped at $\frac{1}{2}$ past 6 o'clock, had a strong westerly wind all day with several showers of rain, since entering the river the country is more open, patches of small pine are frequently met with on the banks, now less muddy than before, but the rising ground has a very barren look, blighted pines and very small birch are thinly scattered over it in every direction. We made better *way* this afternoon, being greatly assisted by the strong current. The Youcon Indians overtook and camped with us here.

20th. A cloudy and windy morning; we left early (4 o'clock), W.S.W. $\frac{1}{2}$, W.N.W. $\frac{1}{4}$, (a small river on the right)³ W.N.W. 2 , W. & by S. $1\frac{3}{4}$, N.W. $\frac{1}{2}$, N.N.E. $1\frac{1}{4}$, N. & by W. $\frac{3}{4}$, W.N.W. $2\frac{1}{4}$, (A sharp rock in middle of the channel, middle of last course, hills on left, mountains 5 or 6 miles ahead) N.W. $1\frac{1}{4}$, N.W. & by N. 3 , N.N.W. 1 , N.W. $\frac{3}{4}$, W.N.W. $1\frac{3}{4}$, W.S.W. $1\frac{3}{4}$, W. & by S. $1\frac{1}{2}$, W. $4\frac{1}{4}$, (Heavy rain, put ashore for breakfast, we remained here on account of the rain until noon when it cleared up, the wind blowing strong from

1. The Porcupine first explored by John Bell, in 1842 and 1844. Three years after Murray's journey, Robert Campbell ascended the Porcupine, from Fort Yukon to Lapierre House. Thereafter the river became a regular trade route for the Hudson's Bay Company, until the transfer of Alaska to the United States, when the company were compelled to abandon Fort Yukon and confine their operations to the Canadian side of the boundary. It was not until 1888 that that part of the Porcupine from the mouth of Bell river to the boundary was surveyed, by R. G. McConnell. The same year, Wm. Ogilvie explored the upper Porcupine, from its source to the mouth of Bell river.

2. 'The valley,' says McConnell, 'is generally rather wide and shallow, but at one point about ten miles below Bell river, becomes somewhat contracted, and for some miles has the appearance of a wide cañon.' This is what Murray calls the 'small ramparts.' See Geol. Survey, 1888-9, 123D, for description of this portion of the Porcupine.

3. Probably Driftwood river.

the west created an ugly swell, but by keeping along shore we were enabled to proceed) W. $1\frac{1}{4}$, W.N.W. $\frac{3}{4}$, N.W. & by W. $1\frac{3}{4}$, (Steep rocky banks on south side) N.N.E. $3\frac{1}{2}$, N.N.W. 1, (High precipices on each side) W. & by N. $1\frac{1}{4}$, W.S.W. $4\frac{1}{4}$, (an island) S.S.W. 1, W. $\frac{1}{2}$, W.N.W. $1\frac{1}{4}$, S.W. & by W. $2\frac{1}{4}$, (A small river enters on the left, mountains seen to the south) S.S.W.¹ 3, W. $\frac{3}{4}$, W. & by N. $1\frac{3}{4}$, (A narrow creek enters on the left² the only outlet to a lake, a short distance to the south, in which the Indians say there are plenty of excellent white fish; they call it 'Big White Fish Lake,' it would be a great acquisition to a post within reach) N.W. $2\frac{1}{3}$, S.W. & by W. $2\frac{1}{2}$, W.S.W. 1, W. & by S. $2\frac{1}{6}$, (another small river joins this on the left, high mountains about 10 miles to the south) S.S.W. $1\frac{1}{2}$, (Rocky banks and shoal water) W. $\frac{2}{3}$, W.N.W. $1\frac{1}{2}$, W.S.W. 1, (Head of large island; by the direction of the Indians, we followed the left channel) S.W. & by W. $\frac{1}{3}$, S. & by E. $\frac{1}{2}$, S.W. $\frac{1}{4}$, W.N.W. $\frac{1}{2}$, Encamped on the island, near to the lower end. Towards evening the weather became very disagreeable, heavy showers of rain and sleet with strong wind. The boat went aground for the first time this afternoon, where the river is broad and very shoal, although the water is never considered high. The Indians say that in 'half a moon' more the boat could not pass. The Peels River Indian with his family in the large canoe, came up to us after supper. The Youcon Indians went ahead to wait for us further on, where they expected to kill some Rein deer. Two deer were seen crossing the river in the evening, chase was given by the Indian but without success. A few more geese were killed to-day.

21st. Some snow fell during night, and in the morning sleet and rain, the weather was so unfavourable that we breakfasted before starting. Left at 9 o'clock and proceeded on the same course as last $4\frac{1}{4}$, N.W. & by W. (An island $1\frac{1}{2}$ miles in length followed south channel, the main channel on the north side) $3\frac{3}{4}$ W.N.W. 1, W. $1\frac{1}{4}$, (The Indians were here waiting for us on the bank with the meat of two Rein deer, killed this morning. Although only two of them had guns, each had his share of the meat, they were paid in ammunition and a small bit of tobacco given gratis to encourage them to hunt more)

1. This course about one and a half miles long by McConnell's survey.

2. Fishing river.

S.W. & by W. $5\frac{1}{2}$, W.N.W. 1, N. & by W. 2, W. & by S. $\frac{1}{4}$, S.W. & by S. $\frac{3}{4}$, (A low island, smooth mountains seen to the north) W.S.W. $2\frac{1}{4}$, (Shoal water) S.W. and by S. $1\frac{1}{2}$, S.S.E. $1\frac{3}{4}$, W. & by S. $1\frac{3}{4}$, S. 1, S.S.E. $1\frac{1}{2}$, S. & by W. $2\frac{1}{2}$, W.S.W. $1\frac{3}{4}$, (A large island on left, formed by the rain having cut through this point in the spring, we kept the new course, a saving of about 3 miles) N.W. & by W. $4\frac{1}{2}$, (High banks on right, an island on left) S.W. & by S. $3\frac{1}{4}$, (Kept to the left of another island) W. $5\frac{1}{4}$, S.W. 1, S. & by E. 4, S.W. & by S. $\frac{3}{4}$, W. 1, N.W. 1. Compelled again to encamp early on account of rain, it cleared up in the evening and became very warm, and the mosquitos more troublesome than usual. The river in some places passed to-day is broad, we were aground twice on hidden battures, but plenty of water was always found when in the proper channel. To the north is a range of high but smooth mountains² (seen by us most of the day) where it is said Rein deer resort in numerous numbers during winter, the Indians of course call them the 'Carribeux Mountains,' two apparently very high mountains are seen to the south say 25 or 30 miles distant. We are now, according to my reckoning, *across the Boundary Line*,³ and I have been on the look-out as we came along, for a site whereon to build; should it so happen, that we are compelled to retreat upon our own territory. There are several points that might answer well only for the scarcity of timber for building purposes, but I daresay enough could be picked up *here and there* if it was actually required.⁴

This is the country of the 'Vanta Kootchin' (men of the lake) a band of about 80 'first-rate' fellows for the whites, some of the Youcon Indians often come in winter to hunt deer on these mountains. To the north west are the 'Ney-et-se-

1. By McConnell's survey this course should be S.S.W. Distance overestimated. The 'low island' referred to lies opposite the mouth of Old Crow river, which Murray seems to have passed without noticing.

2. Now known as the Old Crow mountains, so named after a Loucheux chief of that name, to whose hunting grounds they belong.

3. Murray is a good deal out in his reckoning. He has not yet reached the upper end of the Ramparts, and the International boundary is not far from the lower end. He has, in fact, nearly fifty miles more to go before he reaches Russian territory.

4. As a matter of fact, the Hudson's Bay Company was compelled eventually to retreat across the boundary, though not by the Russians, and a post was built near the lower end of the Ramparts.

Kootchin' (*Gens du large*) numbering about 40 men,¹ it is also within reach of a band of the 'Gens-du-fou,' and being right in the midst of the Carribeux lands, I would suppose no better place could be found for provisions.

22nd. Another cloudy morning and a few light showers of rain. We left at $\frac{1}{2}$ past 5 and continued N.W. $1\frac{1}{2}$, W. & by N. $2\frac{1}{3}$, (High crumbling rocky banks) N.W. & by W. $1\frac{1}{4}$, (Commencement of the great ramparts,² the river becomes quite narrow and the current much stronger) W. $2\frac{1}{3}$, W.S.W. $1\frac{1}{4}$, W. 1, W. & by S. $1\frac{3}{4}$, W. $\frac{1}{2}$, W. & by S. $2\frac{1}{2}$, N.W. & by W. $1\frac{3}{8}$, (A large rock peeping up in the centre of the river, called by the Indians the *death rock*. A Loncheux while descending in high water broke his canoe on the rock, remained there and died of starvation, his bones were found on it in the fall. Indians are proverbially good swimmers and it is strange to hear of any meeting their death in this manner, but few of the Loncheux can swim, although most of their time in summer is spent on the water) W. $4\frac{1}{4}$, W.S.W. $2\frac{1}{4}$, W. 1, (Found an opening in the rocks with plenty of wood and went ashore for breakfast, the Youcon Indians continued on to wait for us at a famed deer pass below) W.S.W. $2\frac{1}{2}$, W. & by S. $\frac{1}{4}$, W.S.W. $2\frac{3}{4}$, S.W. & by S. $1\frac{3}{4}$, (passed the Indian canoes hauled up on the bank, where there are some steep wooded hills) S.W. & by W. 1, W.S.W. $\frac{1}{2}$, (very high rock on each side) W. $1\frac{1}{2}$, W.S.W. $\frac{3}{4}$, S.W. $\frac{3}{4}$, S.W. & by W. $\frac{3}{4}$, N.W. & by W. $1\frac{3}{4}$, S.W. $\frac{3}{4}$, S.W. & by S. $2\frac{1}{2}$, W. & by S. $\frac{1}{2}$, S.W. 2, W.N.W. 1, (A small but very rapid river enters from the N.W.) S.W. $\frac{1}{4}$, S. & by E. (Heavy

1. 'The banks of the Porcupine,' says Richardson, 'and country on the north of it belong to the *Vanta-kutchi*, "people of the lakes," having 80 men; and to another band, named *Neyetsè-kutchi*, "people of the open country," who have 40 men.' The latter are doubtless the Natsikkutchin of Dall, the Natchekutchin of Ross, and the Natsit-kutchin of Petroff. The latter says that the word *natsit* signifies strong, and that this tribe, described as nomadic, not numerous, and occupying the banks of the Porcupine above its junction with the Yukon, were known to the fur-traders as *gens de large*.

2. The Ramparts is 'a local name employed by the traders to designate a contracted walled valley or cañon.' (The term has been applied to similar conditions on the Mackenzie, the Yukon and the Porcupine.) 'The portion of the valley of the Porcupine which passes under this name is exceedingly picturesque. The banks rise steeply from the water's edge on both sides to heights of from three to five hundred feet, and their green slopes are everywhere broken by shattered pinnacles and bold crags and cliffs of brilliantly tinted dolomites and quartzites.'—McConnell, 129D.



Ramparts of Porcupine River.

swells here, sunken rocks and powerful current) $\frac{3}{4}$. A singular isolated pillar on the left bank about 20 feet in height,¹ (the channel is here broader) S.W. & by W. $\frac{3}{4}$, S.W. & by S. $2\frac{1}{6}$, (channel again narrow) S.S.E. $\frac{3}{4}$, S. & by W. $2\frac{1}{8}$. (The principal body of the river rushes through a small channel of about thirty feet wide, between the rocks on one side and a high strong batture on the other, this is named the 'Carribeux leap' from one being able to leap over it, so say the Indians) S.W. $\frac{1}{2}$, S. & by W. 2, S.E. $1\frac{1}{2}$, W.S.W. 1^2 , S. & by W. 3, W. $3\frac{3}{4}$, N.W. & by N. 2, W. & by N. $\frac{1}{2}$, W. & by S. $1\frac{1}{2}$, W.N.W. 1, (Banks again sloping and wooded) N.W. $2\frac{3}{4}$, (Channel broad and rocky hills on each side) W. & by S. $1\frac{1}{4}$, S.W. & by W. $1\frac{1}{2}$, (River becomes very broad, with low banks, and smooth hills in the distance) S.W. 2, W.S.W. $4\frac{3}{4}$, (An island on right $1\frac{1}{2}$ miles long, and another smaller one on the left) N.W. $2\frac{1}{2}$, N.E. & by N. 1, Camped at $\frac{1}{4}$ to 8 o'clock having come a good distance to-day, but have to thank the strong current between the ramparts, the river, for about 68 miles, runs between rocky hills and precipices varying from 30' to 120 in height. The channel is in most points quite narrow but in others it again spreads out, and numerous *points* suitable for camping both summer and winter can be found. Several ugly rocks showed themselves above water, and the heavy swell in the narrows indicated a rough and rocky bottom, where in low water it would be most dangerous for a boat to pass, as there is no possibility of making portages except in a few places, there is good 'tracking ground' all the way, unless the water is very high. The deer are plentiful here all summer, their beaten roads in the passes on each side are often seen, there is a range of mountains extending to the south which they frequent in winter. The Indians arrived after supper with the meat of another small and lean deer, they saw several cross the river but did not go after them being afraid they would not overtake them. The

1. This 'singular isolated pillar' was afterwards supposed by the traders, according to McConnell, to be equidistant from Lapierre House and Fort Yukon, and was, therefore, known as the Halfway Pillar. The 'small but very rapid river' mentioned by Murray is now known appropriately as Rapid river. Seven miles below this river, Murray passes the site of future Rampart House.

2. Position of Rampart House at the date of McConnell's survey.

3. Position of Howling Dog rock of McConnell's survey.

Loncheux¹ hunter came up at the same time, having eaten nothing all day. He received a piece of meat for supper. The Indians joined in a dance in the evening. I had no opportunity of taking a sketch of the ramparts except when ashore at breakfast [for] which I am sorry, as we passed some very romantic scenery.

23rd. A clear morning, but strong sou'west wind. We started at 6 o'clock accompanied by the six canoes, N.E. & by N. 2 (the river broad and full of battures) N. & by W. $\frac{1}{2}$, (white clay banks) N.N.W. $2\frac{1}{4}$, (on the right is Bear Island, so named from a band of *seven* Grizzly Bears being seen on it) S.S.W. $1\frac{1}{4}$, W.S.W. $1\frac{1}{4}$, S.W. $\frac{3}{4}$, S.S.W. 2, S. & by W. $\frac{1}{2}$, W. & by S. $1\frac{3}{4}$, (High sandy banks) S.S.W. $2\frac{3}{4}$, S.W. $4\frac{1}{2}$, (Blowing a gale of wind right ahead, a heavy swell, and the boat shipping water, were compelled to put ashore in consequence and remained until the wind fell in the evening $\frac{1}{4}$ to 6 o'clock) continued S.W. 2, (passed 'Carp River' entering from the north)² S.W. & by S. $1\frac{1}{4}$, W. & by N. $1\frac{3}{4}$, S.S.W. 2, S. $1\frac{1}{2}$, S.W. & by W. $\frac{1}{2}$, S. & by W. $1\frac{3}{4}$, W.S.W. 2, S.W. $1\frac{3}{4}$, W.S.W. 1, W. & by N. 2, W. & by S. $1\frac{1}{2}$, (High rocky shore) W. 4, W.N.W. 1, (Steep rocky island) W. 1. Encamped at $\frac{1}{2}$ past 9 o'clock on a small willow island, in a den of mosquitos, the sky again lowering but a calm night. The Indians kept with us all day, and, although not always right, were of some assistance in pointing out the proper channels. The river is now broad and in many places shoal, with numerous small islands and battures, the boat was frequently aground and at one time got afloat with much difficulty. The current is yet strong, but not so much so as between the ramparts. While ashore so long to-day I endeavoured to ascertain the variation of the compas, as the sun shone at times, but passing clouds

1. Throughout this copy of the journal, the name Loucheux is repeatedly spelled Loncheux; possibly an error on Murray's part, but more probably a mistake of the copyist in deciphering his manuscript.

2. Now Coleen river. Succor river, on McConnell's plotting sheet. The 'high rocky shore' which Murray encounters below 'Carp river,' is now known as the Lower Ramparts. McConnell makes the distance from the Lower Ramparts to the mouth of the river, sixty miles, in a direct line, considerably more, of course, taking in the windings of the river. Murray's 'Bear Island' cannot now be identified. Dr. George M. Dawson notes that 'black and grizzly bears roam over the entire region (of the Yukon and its tributaries) and are often seen along the banks of the rivers in the latter part of the summer when dead or dying salmon are to be obtained with ease.'

prevented me from drawing a meridian line accurately with the rude instrument I carried for that purpose, I could not be certain whether it was 43 or 44 degrees east, I had the compass marked *by guess* at 45 east to-day which comes *pretty near the mark*.

24th. The morning being favourable the men were *roused* early, we had so much bad weather lately, that it was thought best to take advantage of it when fine. Under way at 20 m. past 4 o'clock, still blowing fresh from the same quarter as yesterday, but with little swell. W.S.W. $1\frac{3}{4}$, W. $3\frac{3}{4}$, W. & by N. $2\frac{1}{4}$, (an island, low hills in the distance to the N. and East) W. 4, (low muddy banks covered with pines and willows) W. N.W. $1\frac{1}{4}$, N.W. $\frac{1}{2}$, W 1, W. & by N. $\frac{1}{3}$, W. $1\frac{1}{4}$, (Blue hills seen about 10 miles distant to the south, the river divides here, followed the north channel, the other appears to run about 2 miles to the south) W. & by N. $1\frac{1}{4}$, S.W. $\frac{1}{4}$, S.S.E. $1\frac{1}{4}$, S.W. $1\frac{1}{2}$, S.S.W. $1\frac{1}{3}$, (joined south channel) W.S.W. 2, S.E. $\frac{1}{2}$, E. $1\frac{1}{4}$, S.E. $1\frac{3}{4}$, S.W. & by S. $\frac{1}{2}$, (A river similar to Rat River enters from the south,¹ head of large island, kept the left channel) S.W. 4, S.S.E. $\frac{1}{2}$, E.S.E. $\frac{3}{4}$, (Blue mountains seen 15 or 20 miles ahead) S.S.E. $1\frac{1}{4}$, S.S.W. $\frac{1}{3}$, (a small river enters from the east) W. $\frac{1}{3}$, N.N.W. $\frac{3}{4}$, S.W. & by W. $\frac{3}{8}$, S.W. & by S. $1\frac{1}{4}$, S.W. & by W. $\frac{3}{4}$, W. $2\frac{1}{4}$, (foot of large island above noted) N.W. & by W. $3\frac{1}{2}$, S. & by W. $\frac{3}{4}$, S. & by E. $1\frac{3}{4}$, S.W. & by S. 4, W & by S. $2\frac{1}{2}$, S.S.E. $2\frac{1}{4}$, (another island) S.W. & by W. $1\frac{1}{4}$, S. & by W. $3\frac{1}{2}$, S.W. & by S. $1\frac{1}{4}$, (Three beaver were seen here and one killed) W. 1, (a lake pointed out in the left where the Youcon Indians come to hunt rats in spring²) N.W. & by W. $1\frac{1}{2}$, W $\frac{1}{3}$, (several small islands) S.W. $2\frac{3}{4}$, W.S.W. 1, (island on right) S.S.W. $\frac{1}{6}$, S.E. $1\frac{1}{2}$, S.S.W. $1\frac{1}{4}$, W. $\frac{1}{2}$, (River shoal, went aground. A smoke discerned on the bank below, at what is called the canoe portage, to which the Indians hurried, on arriving they informed us that it was a *Death Fire*. It is the custom of these Indians when any of them die, to make a fire at a public place where they know their friends will pass, willow poles are stuck in the ground on which is hung the hair of the deceased. They told us, by what marks I know not, that

1. Probably the stream now known as Rat river, joining the Porcupine to the east of 144° .

2. Rat lake.

it was an old man that had died, and being anxious about their relations, they said they must leave us, but directed us to keep to the left of a large island we would arrive at to-morrow. At this time a thick smoke was noticed to the south, supposed to be a *signal fire*, which hastened their departure. They shouldered their canoes and disappeared amongst the willows. The Peels River Indians continued with us) N.W. & by W. 2, N. W. $\frac{1}{4}$, W.S.W. $\frac{1}{4}$, S.W. $\frac{1}{4}$, S.W. & by S. $\frac{1}{2}$, S.S.W. $2\frac{3}{4}$, (passed through a small channel on the right) W. $\frac{1}{2}$, (joined main channel) NW. $\frac{1}{4}$, W. $1\frac{1}{2}$, S.W. & by S. $\frac{1}{2}$, where we encamped for the night at $\frac{1}{2}$ past 6 o'clock, the men greatly fatigued. Islands, battures, and small channels increase in number as we descend, and the navigation of the river is of course more intricate, but the bottom which we frequently touched is smooth and gravily. The current continues strong, the banks are low and covered with larger trees than we have seen on this river. There are several places which can only be ascended with the boat in spring, by poling, as there is no possibility of either *tracking* or using ours.¹ A warm and beautiful evening.

25th. A fine morning, we were off before 5 o'clock. S.W. & by S. 1, W. & by S. $1\frac{1}{4}$, (a channel on right) N.W. & by N. 2, W. & by N. 2, S.W. $1\frac{1}{3}$, S.S.E. $\frac{1}{2}$, S. & by W. $1\frac{1}{4}$, W.S.W. $1\frac{1}{4}$, W & by S. $1\frac{1}{4}$, (a channel on left) S.W. & by W. $\frac{1}{2}$, (small channel or river on right, soft undermining banks, river narrow) S.W. 1, the river divides, suppose this to be the head of the island mentioned by the Indians. Kept to the left, (the smallest branch) S.W. & by W. 2, S. & by W. $\frac{1}{3}$, S.S.E. $\frac{3}{4}$, S. & by W. $1\frac{1}{3}$, W. & by N. $\frac{3}{4}$, (channels on each side) S. W. & by W. $\frac{1}{2}$, S.S.W. $1\frac{1}{4}$, (joined the main channel) S. W. $\frac{1}{4}$, S.S.E. 1, (A river with clear water enters from the east²), S.S. W. $1\frac{1}{3}$, W. 1, (channel on right) S.W. & W. $\frac{1}{4}$, S.W. & by S. $1\frac{1}{3}$, (another small clear river, suppose a branch of the

1. i.e., oars.

2. Probably Big Black river, entering the Porcupine from the south-east. Murray has passed Salmon river, coming in from the north above Big Black river, but does not mention it in his journal. 'For some miles above its mouth,' says McConnell, the Porcupine 'divides around numerous islands, and branching channels become so frequent that care has to be exercised to select the right one.' McConnell makes the distance from Rampart House to the mouth of the Porcupine, measured in a straight line, about one hundred miles, and fully one hundred and fifty by the course of the river.

above enters from East) W. & by S. 1, (channel on left) S.W. & by S. $\frac{1}{4}$, S.E. & by S. $\frac{1}{3}$, S. & by E. $\frac{2}{3}$, (lake on left) S.W. & by S. $\frac{1}{6}$, (River again divides, followed the left) branch) W. & by S. $\frac{3}{4}$, W.N.W. 1, W. & by S. $\frac{1}{6}$, S. $\frac{1}{3}$, W. $\frac{1}{3}$, W.N.W. $\frac{1}{6}$, W. & by S. $\frac{1}{4}$, S. & by W. $\frac{1}{4}$, (River again forks off, still kept to the left) W. & by S. $\frac{1}{6}$, W.N.W. 1, (a lake on right) S.W. & by W. $\frac{1}{3}$, (Went aground in a narrow and shoal place, we were afraid we had taken the wrong branch, but the P. River Indian among us told us we would soon join the main channel, all hands were forced to take to the water, and dragged the boat over almost dry land, there was now no current) S.W. & by S. $\frac{1}{4}$, S. & by E. $\frac{1}{4}$, S.S.W. $\frac{1}{3}$, W. $\frac{1}{6}$, N.W. & by N. $\frac{1}{4}$, W. $\frac{1}{3}$, S.W. $\frac{1}{2}$, W.S.W. $\frac{1}{4}$, N.W. $\frac{1}{4}$, N. & by W. $\frac{1}{6}$, N.W. & by W. $\frac{1}{4}$, W.N.W. $\frac{1}{4}$, S.W. & by W. $\frac{1}{2}$, S.S.E. $\frac{1}{2}$, S. & by E. $\frac{2}{3}$, S.W. & by S. 1, (a small lake on left) W. $\frac{1}{4}$, W. & by N. $\frac{1}{4}$, N. & by W. $\frac{1}{6}$, W. & by S. $\frac{1}{4}$, N. $\frac{1}{6}$, N.E. & by N. $\frac{1}{4}$, N.W. & by W. $\frac{3}{4}$, W.S.W. $\frac{1}{4}$, N.W. $\frac{1}{4}$, N. & by W. $\frac{1}{6}$, N. & by E. $\frac{1}{6}$, E. & by N. $\frac{1}{4}$, (small channels on right) N.W. $\frac{1}{8}$, N.W. & by W. $\frac{3}{4}$, (The river was before us, and we had hard work to shove the boat through, being almost closed up between the banks, we had followed the wrong channel this time, again in deep water) N. & by S. $\frac{3}{4}$, S. 2, S.W. & by W. $\frac{1}{6}$, W. & by N. $\frac{1}{4}$ (channel on left) W.S.W. 2, (A small river on left and 2 channels on right) S.S.W. $\frac{3}{4}$, W. $\frac{1}{3}$, N.N.W. $\frac{3}{4}$, (large channel on right) N.N.W. 1, on rounding the point we saw four Indians on the south bank who fired two shots as we approached. The water was shoal close in shore and on demanding which was the best place to land, they said there was no occasion for us to come ashore, as there were *nobody* there. You are there, was the reply of the interpreter; they then said they had nothing to give us, but on going ashore we found that they had something—to wit—the carcass of a large moose just killed. After each receiving a small piece of tobacco, and being told the object of our coming to their country, they became more communicative, and gave us much information respecting the river, etc. They said that they expected us last year, but after what the Rat Indians told them, they gave up all hope of now seeing us, but they were pleased we had come, so would all of their nation, but there were other people (the 'Gens-du-fou') farther up the Youcon that would be angry. Not expecting us, they

were afraid when they first saw us, which was the reason they did not wish us to come on shore. The fresh meat was now willingly traded for powder and ball, and after talking and smoking for half an hour more we hurried on for the *mighty river*, now close at hand, the Indians accompanying us in their canoes—N.W. & by W. 1—*One reach more*. Sou'Sou West, $\frac{3}{4}$ of a mile, and we entered the turbid waters of the Youcon. Having ascertained from the Indians that there was no high land below, the bows of the *Pioneer* were turned up stream, and all in good spirits at being so near *home*, we pushed on at a great rate for some time following to the sou'west behind an island, but on reaching the upper end, we joined the main channel, and met the full force of a *Youcon current*; that of the *McKenzie* is nothing to it; it was with much difficulty—at certain places—we could make any way against it with the oars; the banks are so overhanging, thickly wooded, and choked with fallen trees, that tracking was equally laborious, and the water too deep in most places for using poles. Some of the men were sent ashore with axes and a passage made until we rounded the point with the line; after which we got on a *little* better. Bearing to the south and sou'east another mile, we put ashore at the entrance to a small lake at $\frac{1}{2}$ past 9 o'clock for the purpose of encamping, but the mosquitos seemed determined we should not, we were congratulating each other on starting at getting clear of Peels River before the mosquito season, but this is 'out of the frying pan into the fire.' I have been in the swamps of Lake Ponchartrain and the Balize, along the Red River (Texas)¹ and most parts of that 'Gullinipper' country,² but never experienced anything like this; we could neither speak nor breathe without our mouths being filled with them, close your eyes, and you had fast half a dozen, fires were lit all

1. Lake Pontchartrain, about six miles north of New Orleans. A canal connects it with the city and with the Mississippi. Balize, one of the pilot-towns near the mouth of the Mississippi. Red river, the lowest of the great tributaries of the Mississippi traverses Texas and several other states.

2. Gallinipper, a large mosquito. Of uncertain origin, (the name, not the mosquito) according to Murray's New English Dictionary. One of the characters in Haliburton's 'Clockmaker' is described as jumping up 'a snappin' of his fingers, as if he wor bit by a galley-nipper.'

around, but of no avail.¹ Rather than be devoured, the men, fatigued as they were, preferred stemming the current a little longer, to reach a dry and open spot a little further on, of which the Indians informed us. Another half hour's hard *tugging* brought us to it, and we encamped on the banks of the Youcon.

I must say, as I sat smoking my pipe and my face besmeared with tobacco juice to keep at bay the d——d mosquitos still hovering in clouds around me, that my first impressions of the Youcon were anything but favourable. As far as we had come (2½ miles) I never saw an uglier river, every where low banks, apparently lately overflowed, with lakes and swamps behind, the trees too small for building, the water abominably dirty and the current furious; but I was consoled with the hopes held out by our Indian informant, that a short distance further on was higher land.

The trip from Lapiers House occupied eight days, but we were much delayed by rain and adverse winds; next summer the river will be better known, and if the water is high, and weather favourable, I have no doubt the trip will be made in six days. The distance from Lapiers House to the Youcon is (*I calculate*) *four hundred and fifty-two miles, this, you will say, is only guess work*, it cannot be otherwise, there is such a multitude of sharp points and windings which had to be guessed at, that no one could be certain; but I have been as accurate as was in my power, and guess it will hereafter be found not *far* wrong. I may have tired you by being over particular in noting matters of no importance, but as aforesaid this book has to be filled up and I have only followed the fashion of McKenzie River, and some other parts of the country—the great fire on the Columbia, to wit—by making a long story out of what might be comprised in a common signed letter.

We arrived here all safe, on Friday June 25th, on which

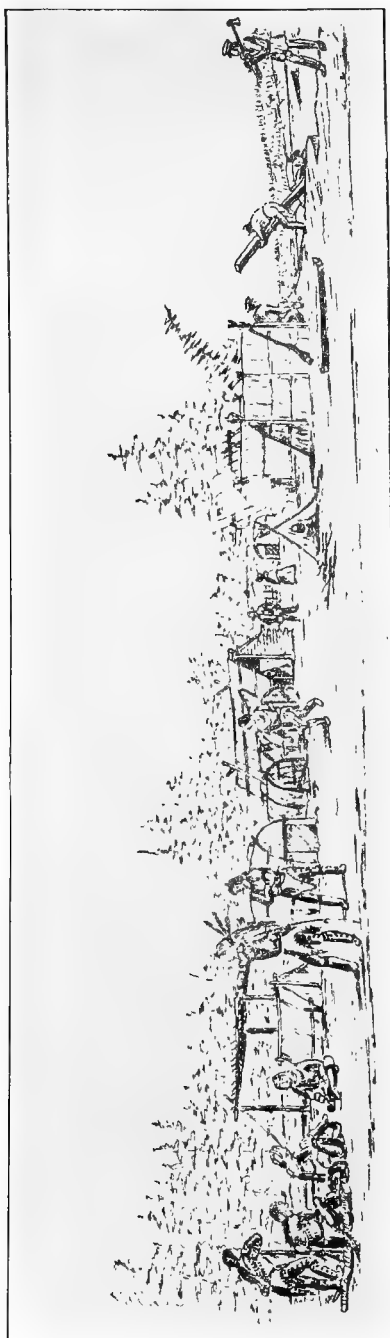
1. A new Commination Service might be constructed out of the recorded utterances of North American travellers on the subject of the energetic and enterprising mosquito. W. W. Kirby, who journeyed from Lapierre House to Fort Yukon about 1860, says that he encountered 'myriads of the most voracious mosquitoes that I have met with in the country.'

2. McConnell makes the distance 337 miles, as follows: Lapierre House to mouth of Bell river, 30 miles; Bell river to Rampart House, 157 miles; Rampart House to Fort Yukon, 150 miles.

date was commenced the regular journal, but I shall here continue my narrative for the remaining days of the month, to give you a more particular account of our first interviews with the natives than is therein mentioned.

Next morning (Saturday 26th) I left with three men and one of the Indians to explore the banks of the river for a site for our Fort, and was guided by the Indian, who seemed to take great interest and pride in showing us the best places, and in describing the banks of the river above and below. We found the land all too low, and with marks of being overflowed, except two places to which he took us. The one chosen is decidedly the most eligible, and answers *well* only for the scarcity of timber; it is a ridge of dry land extending about 300 yards parallel with the river, and 90 yards in width; the banks are here as they are everywhere else as far as we have seen, sandy and undermining, but there is a large batture in the river in front, and above that an island of about a mile in length, which sets the current out, and prevents it except perhaps in high water, from cutting away the banks. Behind us is another and larger ridge of high land but it is too far from the river. The other place mentioned is about a mile farther up on the same side of the river, where there is still higher land, but the banks are composed of pure sand, the wood still scarcer than here, and the small channel opposite, which passes behind the island nearly closed up and in the fall quite dry. Having made the best choice I could, we returned, and tracked the boat up to our final encampment, had the goods and everything taken ashore and placed in security for the night.¹ After the Indians were informed that we had decided on building here, two of them left to inform their friends of our arrival in their country, the two others remained with us, one of whom is a leader of a small band of fourteen men, who, he says, obey him like his own children, it was his father who died lately, and whose *Death Fire* we saw on Porcupine river; he often spoke of his father,

1. Murray elsewhere gives the position of Fort Yukon as three miles above the mouth of the Porcupine, on the east bank of the Yukon. W. W. Kirby says 'about three miles.' McConnell gives the position as 'a mile and a half above the confluence of the two streams.' 'Fort Yukon,' he adds, 'which was originally one of the best built forts in the north, is now (1888) a thing of the past, and with the exception of one of the outbuildings, which has probably also disappeared by this time, has been torn down to supply wood for the steamers plying on the river.'



Camping on the Yukon.

and with great affection and sorrow, and sometimes so agitated that he could scarcely articulate his words. The old chief, he said, was once a great man and a great warrior, and would have been happy to have seen the whites again (it was he whom Mr. Bell saw in the camp of Rat Indians) that before his death he spoke good words to his sons, and when he disobeyed his father's last advice, he knew he would not live long, for three days and nights his tears had been running, because he had no tobacco to smoke upon his father's grave, but he was now made happy, for he would take care of the piece I had given him. I told him to use that, and some more would be given him for that purpose when he left us. I gave him a knife for his services in showing us the river, etc., and a present of comb and looking glass and a little vermilion with which he was greatly pleased. In the evening, he and the Peel's River hunter had some harranging, exchanged dresses, and made good friends.

27th. The Sunday was spent by the men in preparing little bark cabins for themselves, and by the interpreter and I in talking with the Indian leader, who gave very direct answers to our numerous questions about the country, the natives, the Russians, etc. He was one of four Indians from the place that had seen the Russians the previous summer, and described them as did the others at Lapiers House, as being all well armed with pistols, their boat was about the same size as ours, but, as he thought, made of sheet iron, but carrying more people. They had a great quantity of beads, kettles, guns, powder, knives and pipes, and traded all the furs from the bands, principally for beads and knives, after which they traded dogs, but the Indians were unwilling to part with their dogs, and the Russians rather than go without gave a *gun* for each, as they required many to bring their goods across the portage to the river they descended. The Indians expected to see the Russians here soon, as they had promised to come up with *two boats*, not only to trade but to explore this river to its source.

This was not very agreeable news to me, knowing that we were on their land, but I kept my thoughts to myself, and determined to keep a sharp lookout in case of surprise. I found that the population of this country was much larger than I expected, and more furs to be traded than I had goods to pay for. Mr. McKenzie and I divided the night watch between us,

a rule laid down and strictly adhered to when Indians were with us.

28th. About 4 o'clock in the morning we were aroused by reports of fire arms from the point below, and every one was on his feet in an instant, three shots were fired by us in return, twenty canoes hove in sight around the point and soon paddled up along shore until close to our encampment, all the Indians joining in songs and most unearthly shouts. They remained in their canoes without attempting to land until the Indian leader spoke to them; as soon as they had collected on the bank (there were fifteen men with their wives and families in all about forty) their chief, a young man, commenced to harrangue, but it was addressed to the Peels River Indian, who replied at great length in his own defence. The Loncheux of Peels river and the Indians of the Youcon were at war a few years since, and are not yet on the best of terms, it was concerning this and not us the chief was talking. I gave each of the *men* three inches of tobacco to smoke before we commenced with the *speechifying*. They immediately formed into a circle and began to sing and dance at a *furios rate*, expressive of their joy at seeing us, they then brought from their canoes some fresh meat and a quantity of dried fish, and laid it at the door of my tent and traded it willingly for powder, ball and tobacco. As advised by the interpreter I deferred saying much until the principal chief arrived with another band which one of the Indians had gone after. During the day two more Indians arrived from the opposite side of the river, and in the evening another salute of five guns was heard from below. Not approving of the practice of wasting ammunition I ordered the men not to fire, but one Indians monitor (the young leader) said it was the custom with them, when they came in peace, to discharge their guns, and if we did not return the salute, they might consider us to be enemies. Five shots were then fired in answer to theirs, which was responded to from the fleet of canoes, now close at hand, by yells and shouts that might have 'struck terror to the soul of Richard,' but *we* knew it was that of rejoicing. There were eighteen men also some women and children in this party. They hauled up their canoes a short distance below, and formed on the bank in 'Indian file,' the chief in front, the women and children in the rear, and danced forward by degrees until in

front of the tent, where they were joined by the first party, formed into a large circle, with the two chiefs in the centre, and continued dancing and singing without intercession¹ for upwards of half an hour. A small piece of tobacco, the same as before, was given to each of those last come, and a larger piece to the chief, a fine looking young man, easily distinguished from the others by his eagle feathers and a greater profusion of beads on his dress. Some more fresh meat was brought forward and traded as before for ammunition and tobacco. The principal chief then shortly addressed the Peels River Indian, supposing him to be our interpreter, and concluded by saying, he 'waited to hear the White Chief speak.' What I had to say was all 'cut and dry' and delivered by the Interpreter in sentences, and after their own fashion. I commenced by bringing to their remembrance Mr. Bell's visit to this river three summers ago,² when they were all absent. We had heard so much from other natives, about their being a brave people and friendly to the whites, and their country reported so good for furs and provisions, that we had come with the intention of building a Fort and remaining among them. We had sent messengers by the men of the lakes, last winter, to warn them of our intention, but these people had not told them the truth, they were angry at our bringing so many things into this country, because it would prevent them from trading the furs at so low prices—that we had come a long journey, and had much trouble in bringing the goods across the mountains, still he would trade with them at the same rate as at Peels River and other parts of the country. I told them we were a different nation from the *Whites* some of them had seen farther down the river last summer, these people only came once a year to take away their furs, and cheat them with useless goods, what we brought were good, guns, knives, and everything else, and we meant to live always amongst them, but this year, we had only brought a few goods

1. Evidently should read 'intermission.'

2. Dr. George M. Dawson says 'Mr. J. Bell . . . was in 1846 in charge of the Hudson Bay post on Peel river . . . and was instructed again to cross the mountains and to further explore the Porcupine river. In pursuance of these instructions, he in that year reached the mouth of the Porcupine and saw the great river into which it flows, which the Indians informed him was named the Yukon.' It is clear from what Murray here says, that Bell explored the Porcupine to its mouth in 1844, not 1846.

on trial, and if they brought us plenty of good furs, and were able to supply us with food, that more goods and more men would be sent next summer, and we would build a large Fort and reside always in their country, and supply them with guns at twenty Beaver each, instead of twenty-five and thirty which they had been giving to other nations, and the same quantity of beads for six Beaver for which they had given the men of the lakes twelve and fifteen. After enumerating the articles we had, their excellent qualities, and the rate at which they were traded, I concluded by asking if they wished us to remain and build here (several of the young men, regardless of Indian etiquette, replied *aha, aha* (yes, yes) and if so, if they would bring their furs to us instead of taking them to the other whites (the Russians).

The principal chief, after being spoken to by several others, walked to the front and *made a speech*, the longest I ever listened to,¹ except, perhaps, a *cameronian sermon*, and some parts of [it] equally far from the text. The interpreter could not repeat one fourth of it. He began by telling us the bravery of his nation, the extent of their country, the quantity of furs they could bring, and the moose and Rein deer they could kill; and after a *super-extra* allowance of boasting and self praise arrived at what I wanted to hear. He said the *White chief* had spoken truth; they found now that they had been cheated by the other bands, and would hereafter bring their furs to us; they wished no more to see the 'twisted' (the Rat Indians under Grand Blanc) in their country, they had told them what was not true, and they had given up hopes of seeing us, and some of them were just preparing to go and meet the other whites down the river, but they would not; that they had not so many furs at present, but would soon bring what they had, as they much wanted beads and guns. He and his followers were glad that we had come to their country and wished us to remain amongst them and they would strive to supply us with meat, and what other things we required.

The other chief (leader of the first party) spoke, to the same effect respecting his band, they were all rejoiced to see

1. McConnell had to suffer a long harangue, by Senatee, chief of the Fort Yukon Indians. 'As time was precious,' he adds, 'the harangue was cut short by the present of a couple of handfuls of tea, the probable object for which it was made.'

us and made great promises. I told them that I was pleased to hear them talk so well, we had heard that they were *great hunters*, and we had brought little to eat, depending on them to bring us meat. That we much wanted dressed moose skins for shoes, for we had brought none with us. Battishe¹ for snowshoes in winter, parchment for windows for our houses, deer skins and sinews, etc. That we would trade all good furs made in winter or spring but not those killed in summer. We had this year very few beads and guns, and would only give them for Martens, Beavers, Black and Silver Foxes. That anything else we had, would be given for all other furs, except Rats and Marinots.² I then advised them to turn their attention to making provisions and those things we so much required, and as an 'earnest of future favors' some tobacco ready cut up on a board was presented to them; very few of them had pipes, and I noticed several chewing the tobacco and even swallowing the juice. After smoking until several were completely intoxicated, the young chief 'par exemple' could not get up until a drink of water was given to him, he said they were now very happy and wished to have a great dance, but they had only black paint at present if they had some red it would make them look much *prettier*. A little vermilion and a present of a comb and looking glass was given to each of the chiefs. They retired to where the women had prepared an encampment with branches and in a short time issued forth arrayed in all their fineries, and commenced to a regular *Break Down*, all joining. Thirty-seven men and a lot of women and children, only two of whom had before seen the Whites. They danced a variety of figures accompanied always with songs, and continued at it for nearly two hours. I am partly wrong in saying *figures*, with one exception they danced always in a circle, the only difference in their steps, gestures, and songs, of which latter they have a great variety.³ After the *ball* was finished they retired to their own encampment, but the singing was taken up, at intervals, until morning.

1. The thongs forming the net of snowshoes.

2. Probably should read 'Marmots.'

3. 'The formal dance,' says Richardson, 'is always in a circle, but the gestures and the songs which accompany them vary.'

29th. Little work was done by the men yesterday except grinding and handling their axes. To-day we erected a temporary store for the goods and provisions and a scaffold for drying meat. One of the men was employed preparing a small piece of ground for an experimental garden.¹ The day was showery and warm, and our fresh meat, now more than we could use, beginning to spoil, several of the Indian women were employed in cutting it up, for which they each received an awl, and considered it great payment. I had some more talk with the Indians, a few of them left to kill moose for us, the others remaining and although inquisitive and often in our way, were very *becoming in their manners*, and offering to assist in whatever had to be done.

30th. All hands except Mr. McKenzie, the Interpreter and Myself went to the opposite island for bark, although there were with us a good assemblage of as wild and savage looking fellows as needs [be], I felt no more apprehension of danger than amongst the slaves at Fort Simpson,² they were too glad to see us here to offer any violence, still it behooved us to be always on our ground.³ In the afternoon the men returned with the bark, had the store covered and everything removed into it, and now secure from the weather. It was 24 feet by 14, built of unhewn logs, and half open at the end facing the river, in the

1. As will be seen later, this garden was partially successful. 'While in the possession of the Hudson Bay Company,' says McConnell, 'some gardening was done in the vicinity of the fort, notwithstanding the fact that it is situated almost on the Arctic circle. Potatoes and other vegetables were raised, and barley is reported to have ripened. On the Mackenzie river, gardening ceases to the north at almost the same latitude.' F. C. Schrader reports that 'the more hardy vegetables are grown on a somewhat large scale in the mission gardens at Nulato,' some distance below Fort Yukon. See Dr. Dawson's conclusions as to the possibilities of agriculture on the Yukon, Geol. Survey, 1887-8, 24B. Petroff notes that good potatoes have been grown in certain localities in Alaska for eighty years or more. 'The cereal crops,' he says, 'cannot be grown in Alaska.' There was, nevertheless, exhibited at the Toronto Exhibition in 1908, wheat of splendid quality, grown at Dawson, on the Yukon.

2. The reference here is not to slaves as bondmen, but to the tribe of that name. The Slaves belong to the Athapascan linguistic stock, and inhabit the country about Slave river, Great Slave lake, and the upper waters of the Mackenzie. Fort Simpson stands on an island at the mouth of the Liard river, and is 'the headquarters of the fur-trade on the Mackenzie.' See McConnell's description of the fort, fur-trade, agriculture, &c., Geol. Survey, 1888-9, 85D.

3. 'Guard.'

door way my own tent was pitched so that none could enter in the night without my knowledge, the men's cabins were close to it, each was provided with a loaded gun, my own gun and those remaining from the box were also charged and ready at hand in case of need.

The Indians who left yesterday returned with the meat of one old, and one young moose killed this morning, which with the skins they traded as before. In the evening two of the 'Gens-du-fou' arrived in their canoes from their lands farther up the Youcon. They belonged to the band of the chief who visited Peels River in the spring; it was them the other Indians referred to as being angry at our coming here. Those two brought nothing, but said they had come only to see where we were building, that their people were encamped some days' journey up the river, and would come here as soon as they heard of our arrival. But the Indians here thought they had come only to see whether we had pickets around our encampment, as they *did not speak well*. The young leader cautioned us to be on our guard when the band arrived, as they would likely come in great numbers. The customary haranguing commenced between them and those here, they said nothing concerning us in public, but were greatly displeased to find a Peels River Indian with us, most unfortunately a great number of their women had died lately, and many were sick when they left their camp, one of their women had been stolen from the Loncheux of Peels River, and they believed that 'Vandeh' our hunter, to revenge the loss of said woman who was a relative of his, had made *medicine* to kill them, and they now wished to kill him that no more of their wives might die. Poor Vandeh had been in hot water ever since his arrival here, and thought now that his day was come, and talked of making tracks homeward, but I told him not to be alarmed, and leave me to speak to them. I did not attempt to persuade them of the absurdity of their belief, for all the tribes in this part of the country believe as gospel, that certain individuals have necromantic powers to cause the death of others, though a great distance apart.¹ But I told the two *foolish gentlemen* that Vandeh was

1. On the shamans or medicine-men of the Alaskan tribes, and their practices, see Ivan Petroff's 'Report on the Population, Industries and Resources of Alaska,' 162, &c.; also W. H. Dall's 'Alaska and its Resources;' Richardson's 'Arctic Searching Expedition,' I. 385.

not a 'medicine man' nor an enemy of theirs, but he had come with us on purpose to speak for them, when they brought no interpreter, and be their friend; that he belonged to us, and while we were here none would be allowed to do him harm. The other Indians were all present but took no part in this, as they did not wish to displease the Gens-du-fou, who they say are very strong, the two bands nearest this numbering upwards of a hundred men. I had a long conversation with the two strangers, and explained all to them the same as to the others, made some inquiries respecting their trade with the Russians, the strength of their party, etc., but received generally evasive answers. I regretted much to hear that they were displeased at Peels River last spring, they say that the person who traded with them offered to kill their chief. The whole affair is this: While I was absent on the trip to Lapiers House, Edward McGillinay¹ was left in charge of the Fort during which time the Gens-du-fou arrived. I met them at Lapiers House and sent a note by the chief to McGillinay with instructions to treat them well, etc. While trading with them in the shop, he was showing off to the chief, the way to stab a man, of course, only in sport, but these Indians who are the most trifling and awkward to deal with of all the northern tribes, took it in earnest and left immediately, but these two here appeared satisfied with our explanation. Another very annoying circumstance happened at the same time, and was in direct opposition to my instructions: one of the Indians had twenty skins for which he wanted a gun, there were none to give him, and he being unwilling to take other goods, the interpreter promised to give him his own gun when he came to the Youcon, and the furs were left. The only way I could arrange this was to pay the interpreter for his gun at Peels River, but he by accident broke his gun in the spring and it was of no use bringing it here. I am now obliged to keep a gun to pay a Peels River debt, rather than displease these Indians, the furs were received and must be paid for. While talking with them, I took good care to tell them that we were all well armed, and being in a strange country kept guard every night, and advised them whom we considered our

1. Edward McGillivray. Many of this surname in the fur trade. Richardson mentions a M'Gillivray Island, a little above the estuary of the Mackenzie—perhaps named after Edward McGillivray above mentioned.

friends, when they came to see us, to come during the day, for if they arrived in the night, in fall or winter when it was dark, we might take them for enemies. They were particularly amused with my double barreled gun, I also showed them my pistols which I took from my coat pocket, one of which (the only one with a lock) I fired at, and hit, by chance, a stick floating past in the river. They were greatly astonished at this, so were the other Indians, and so was I myself, for it was almost a gun shot distant. One of them offered to bring me fifteen skins in Martens if I would give him the pistol, but he was told that we did not trade them, but kept them only for self defence. After a deal more *friendly* discourse, I gave them a piece of tobacco to deliver to their chief, and remind him of his promise to me last spring, that he and his followers would come here in the summer and bring a supply of dried meat and geese.

It was past midnight before our conference was broken off, and I felt as tired of talking, as I do of writing at this moment. I had got very little rest since our arrival, and was too fatigued to remain longer, so I tumbled in for a good sleep, while Mr. McKenzie took the morning watch.

Note.—One band of the 'Gens-du-fou' have, of late years, had much intercourse with the Loucheux Indians, and many of them speak the language, when a strange party of them come to trade in the Loucheux country, they generally bring a person to interpret for them, both of those here spoke Loucheux fluently.

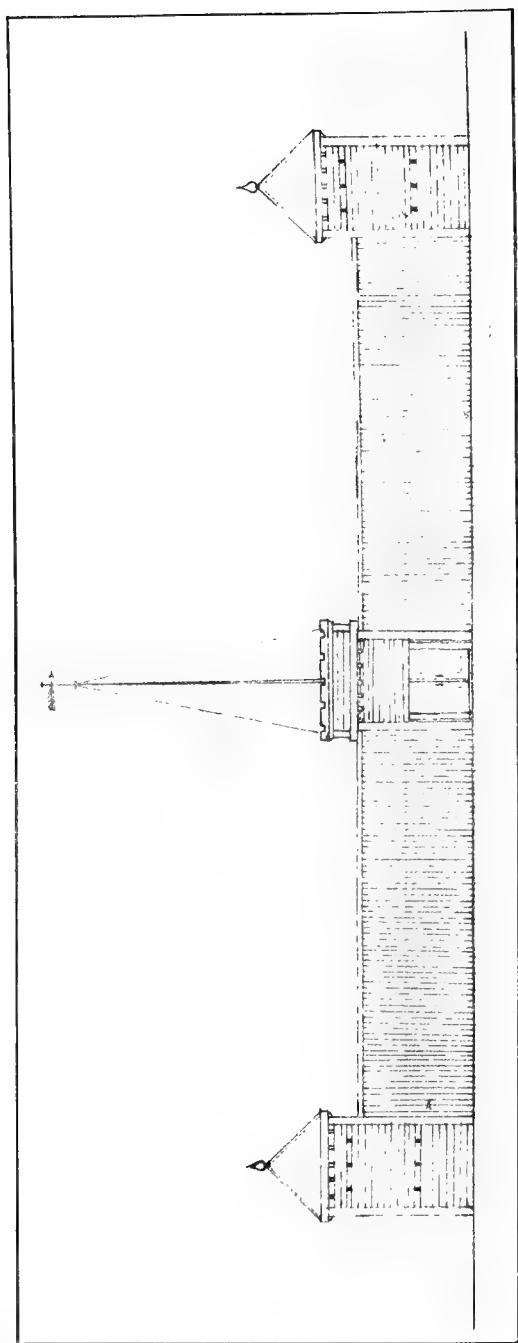
Our encampment on the Youcon was, barring the mosquitos, a very pleasant place, much more so than I expected to find on first entering the river, and I must say that we passed the summer very comfortably, although in the midst of a heathen land, and so far removed from civilized country. Fort Simpson for instance, we Youconians consider as a partly *civilized* place, and talk of it as you would of Red River settlement. Rat Portage is to us what Portage la Loche is to the [people?] of the McKenzie, and we look upon Peels River as being near home; but this is now our home, a home in the 'far west' with a vengeance. Not many years ago the settlers in Wisconsin and Iowa thought they could go little farther; an editor of some newspaper published in these parts

described his town as being so far west that it was *almost* on *the edge*, but he knew not the Youcon. *We are* over the edge, and that by a 'long chalk,' which I call six degrees of longitude across the Russian boundary.¹ Of late years the margin is considered, by folks wot don't know no better, to be the outermost stretch, but what is that to the Youcon? We are thirty-three degrees farther west than the mouth of their great river, though still on terra firma, and I wish it was our own, I mean the Hudson's Bay Co.'s, at least for a term of years until we thinned it of its superabundance of Beaver and Martens.

But I am wandering from my subject, it was to give you some account of the first season on the Youcon that I have taken up my pen. I have said our encampment was a pleasant place, and so it was, quite a little village entertaining no less than six *dwelling houses*, all built upon the Sabbath day, for which I am not to be held accountable. They were made of willow poles covered with pine bark, and fashioned according to the fancy of their owners, some open at the end, some half open, and others only with a small door. Besides these six *houses*, there was a log store, also another cabin for containing dried fish, two more scaffolds, and a garden measuring *12 feet by 8*—said garden was prepared and fenced out, and on the 1st of July a few potatoes were planted, and it was my peculiar care and pleasure to attend to it and have it duly watered in drougty weather, never expecting, that at that advanced season the *crop* could be brought to maturity, but to try by every means in my power to preserve seed for the ensuing summer.

Our village was built on a small clearance or prairie of about 40 yards square, close to the river bank on the lower part of the ridge of rising ground before mentioned: about 100 yards farther up was the highest land and extending farthest from the river, this was chosen for the site of our establishment, it was thickly covered with pines and willows, and the men commenced at once and had a large clearance made and the heaps of rubbish committed to the flames. On July 1st our regular operations were begun and all hands constantly employed, still we got on very

1. As a matter of fact, Fort Yukon was a little over four degrees west of the international boundary; the latter being long. 141°, and Fort Yukon, according to Capt. C. W. Raymond, U.S.A., being in lat. 66° 33' 47", and long. 145° 17' 47".



Fort Yukon.

slowly, most of the men (the Orkney men)¹ were green hands with axes and could scarcely square a log, and it was seldom but some of them were off duty by being [cut?] and lamed. Except a few sticks, all the building wood had to be brought in the boat from the islands opposite about $\frac{3}{4}$ of a mile distant, but owing to the numerous battures and the strong current in the river, they had to go about two miles to reach the islands, and more time was occupied in going and coming than in cutting and squaring the wood. Having already formed great ideas of the country, I determined on building a Fort worthy of it, we are in an isolated corner of the country and cut off from all communication with other posts at least for assistance, and surrounded by hostile Indians, the Rat Indians are enraged at our being here, the 'Gens-du-fou' reported ditto, also those down the river with whom the Russians have been trading, the Russians themselves might give us battle, and I concluded on making a convenient and substantial Fort, though it might take longer time. A plan was drawn out and by it the building was guided, but as the work is regularly noted in the public journal, it is unnecessary to make any particular mention of it here, none of us were idle, there was always enough to do for both master and man. We were fortunate in having generally fine weather but there were often gales of wind, thunder storms and rain, the month of July was oppressively warm, the thermometer ranging so high that it would not have disgraced the tropics. I never before spent a summer so far north and could scarcely [have] credited others had I been told, that, on the banks of the Youcon, not far from the Arctic circle, the thermometer was, at 2 o'clock on the afternoon of July 10th, 90 degrees above zero—but of the weather anon; a meteorological journal was kept from the 1st of the month of which you shall have a copy. We were seldom without visitors, and they did not often come empty handed, we had always *plenty to eat* and *plenty to do* so that none were allowed to weary. Geese and duck were always passing, and now and then a Beaver would clap his tail 'en passant' before our levee. The woods behind abounded in rabbits and partridges, and go which way one

1. From almost the beginning of its history, the Hudson Bay Company has drawn largely upon the Orkneys for its men.

would, if a good shot, he need not return without something for the kettle.

We lived on good terms with the natives and feared nothing, except to see two boat loads of Russians heave round the point on a nocturnal visit from the Gens-du-fou.

The natives on whose lands we are number about ninety men, and are divided into three bands, the chiefs or leaders of each with a number of their followers were here in June as I have already noticed at length, the others were soon made aware of our arrival, and in a month afterward I believe they had all been here, and all were alike pleased to see us. They soon brought us their furs, principally Beaver and Martens the greater part of which had been brought up by the leaders and a few of the *rich* men of the nation who were preparing to meet the Russians down the river. Beads and guns were always demanded and I had few to give them, and was anxious to distribute what I had as equally as possible amongst them. But they were not satisfied with this mode of trading, they say when the others go to trade with the Russians they get what they ask for and expect the same here, while we had what they required. Notwithstanding the explanations and reasons given we had some difficulty in pleasing all, they were however satisfied with our prices. Blankets, axes, knives, powder horns and files went off readily enough, but it was hard to dispose of the clothing, as they consider their own dresses much superior to ours both in beauty and durability, and they are partly right, although I endeavoured to persuade them to the contrary. I could not give them the reason for bringing so few goods, that we had brought only a few on trial, but more would be sent next year, which was the only way to prevent them from disposing of their furs elsewhere.

I may now notice some of the principal arrivals during summer, by way of lengthening my yarn and giving you a clear knowledge of our interviews with the other bands of Indians.

On the 6th of July the 'Letter Carrier,' chief of the 'Vanta Kootchin' (people of the lakes) arrived with twenty men. This Indian is well known at Peels River having visited that place annually since its establishment, he sent a message in the spring that he would meet me here in the summer. They brought some dried meat geese and battiche according as desired, but the object of their visit was principally to receive some ammu-

nition for the summers hunt and to see where we were building. The Letter Carrier said this place was much more convenient for him and nearer his country than Peels River, and he would prefer trading here if I wished it, he had a debt at Peels River but had furs to pay for it. I told him he was at liberty to trade wherever he chose, but that we had very little goods this year, and he could get no advances except in ammunition, and as there were plenty of Martens and Beaver in this country we would trade no rats at least for the present, but if he came here we would be well pleased, as we looked upon him and his people as our particular friends, etc., etc. What they brought was paid for in ammunition, tobacco, and knives, and a few of them only got credit although they all asked for it. The Youcon chief and his brother were here when the band arrived, and next day they had a bit of a row, which nearly ended in bloodshed: their quarrel was, as all their quarrels seem to be, about the women. One of the Letter Carrier's party had taken to wife a sister of the young chief, and he had heard that they had killed her. The chief demanded payment in beads for his sister's death, which was refused, and something said that insulted him, when he drew his knife and walked boldly up to the others, who would soon have cut him to pieces but for our intervention. A few words of explanation from one Indian Hunter, who was acquainted with the merits of the case, brought matters to a better understanding—the woman had not been killed, but was drowned in crossing a river by her canoe upsetting, the Letter Carrier made the brother a present of a large Esquimaux spear, valued ten skins, and friendship was again restored. They remained here four days during which time a party of Youcon Indians arrived and we witnessed some of their great dances, and gymnastic games between the two parties; such a dancing and singing, leaping and wrestling, whooping and yelling, I have never before heard or seen.¹ This was always persevered in all night and although amusing to us at first, by being continued became very tiresome, we could not sleep at night for the noise they made, although requested by the men, I

1. Here, and throughout Murray's account of the manners and customs of the Yukon Indians or Kutchin, comparison may be made with ch. xii. of Richardson's 'Arctic Searching Expedition.' Richardson drew largely upon Murray's journal and letters for his description of the Kutchin.

would not ask them to desist in case of giving offense: these people consider it the greatest treat they can give us, by carrying on their games in our camp, they said they had not been so happy for many years. We were heartily glad when they all left, and allowed us to enjoy peace and quietness for a few days. No more of the Rat Indians (as the men of the lakes are called at Peels River) arrived until the beginning of August, when six others came here, two of them belonging to 'Grand Blanc's' party. They had a few Martens and Beaver, and a large quantity of rat skins notwithstanding they all knew that no rats would be traded here; but these fellows had debts at Peels River which they intended to evade paying, and expected to receive payment for all they brought. I did not wish to encourage any of the Indians to leave Peels River, particularly those that were nearer to it than this, and refused to trade their Musquash, because there were more other furs in the country than I had goods to pay for. They were greatly displeased at this of course, and two of them flung about forty skins (480 rats) into the fire, but they repented of their rashness next day. I gave each of them a few measures of ammunition on credit, and told them when they arrived in the spring, if there were any goods left they would be paid for the rats but not otherwise, and since they had brought them so far, if we could not pay for them that we would take them to Lapiers House with the boat in summer where they might get them when they went to Peels River. I am not certain whether you will be pleased or displeased at my refusing to take rats here, as that trade is so much encouraged at Peels River, but you sent me to trade with the Indians on the Youcon and not those belonging to P. River, and 30% or taking Martens at their real value, 60% is surely better than 6%. I doubt the Hon. H.B. Co. would pocket very few dimes by the profit of musquash sent to England from the Youcon. The 'Letter Carrier' with nine of his followers again visited us towards the end of August, he brought some good furs and a respectable supply of dried meat, but very lean, he renewed his promise to make provisions for us, after he went to Peels River to pay his debt, and I am informed by letter from Mr. Perris¹ that he had been there and squared his account; he has always kept his promises,

1. Probably Perry.

and none exert themselves more in trying to please us, in speaking in our favour. He is much respected by the whole band on whom we may have to depend much for provisions, and I thought it best to present him with the Chief's Coat, which he partly expected and with which he was mightly pleased. After being dressed he made an *eloquent* speech to his followers and the others assembled; it was partly in praise of us, but more particularly of himself. He said some of the 'Kootcha-Kootchin'¹ would not before believe that he was a great chief nor believe what he said respecting the White people, but they (the Indians) now saw that he was looked upon as the greatest chief of the country. The Whites had only one fine coat and they gave it to him before any other, but they would not loose by that, if he did not bring some good meat and geese in the spring, there were no Carribeux in the mountains and he would never again see a white man, etc., etc. He and his followers left us in high spirits and with professions of everlasting friendship.

It was early in August that a large party of 'Gens-du-fou' arrived. We had previously been informed of the sudden death of their chief, whom I met at Lapiers House, a young man who had great influence with the nation, and reports were circulated by the Indians that his death was imputed to our being here and also to the 'Kootcha-Kootchin'; before breakfast a large fleet of canoes was discried rounding the upper islands, there were no Indians here at the time, but we all knew it was the Gens-du-fou, and as our Indians had repeatedly cautioned us to be on our guard when this band arrived, it created no little fuss amongst the men, some of whom, and the oldest stagers, are the greatest cowards I ever saw, yet to hear them talk when alone, one would think them to be the bravest of the brave. All the canoes (twenty-five in number) soon appeared in sight gliding down along the bank on account of the swell

1. Richardson has Kutcha-kutchi; and Dall, Kutchakutchin. Petroff says the Yunakhotana and the Kutchakutchin, forming together the tribe of Yukonikhotana, inhabit the banks of the Yukon river from Fort Yukon westward to Nulato. They are less nomadic in their habits than their eastern neighbours, but are by no means numerous. Their dwellings are built of logs and roofed with bark, and their summer garments are of tanned moose and reindeer skins, while those for winter use are made of reindeer, wolf and fox skins. Their tribal name signifies 'men of the Yukon.'

in the river, but there was no noise nor singing as with the other, they landed a little above our encampment assembled in silence on the bank: I went forward and presented each with the usual token of friendship, a small piece of tobacco, and expressed my happiness at seeing them here. As soon as I had stepped to the one side, they started off at full race all in a body to the lower end of the encampment and back again to their landing place, shouting and whooping in a peculiar manner; they immediately formed into a half circle and danced with great vigour for a few minutes, keeping time with their outlandish songs. They had a very extraordinary and wild appearance with their greasy dresses covered with beads and brass trinkets, and long cloated hair fluttering in the breeze. These fellows had pipes of their own, pipes made of tin or sheet iron traded from the Russians, more than half of them had brought nothing to trade, and the others had comparatively little—six bear skins, a few badly dressed but otherwise good martens, some moose and cariboux skins, some pieces of fresh meat, and upwards of 100 geese killed with their arrows while ascending the river. They were settled with easier than I expected but occupying most of the day as everything had to be explained to them: They seemed to be generally satisfied with our prices, but made great objections to our powder measure as being too small, that their Whites (the Russians) gave them a much larger quantity. I had some long talk with them in the evening, the greater part of which was concerning their trade with the Russians on the coast, of whom I did not speak *very favourably*, and explained to them the superiority of our goods and our juster mode of trading, and said all I could think of to encourage them to come here with their furs and provisions. I expressed great sorrow at the death of their chief, and presented his brother, who appeared to take the lead, with a foot of tobacco to smoke on the grass; the mark of respect to the *illustrious deceased* seemed to make a favourable impression on them all, and the chief's brother said he now looked upon us as his friends, but some of them spoke differently to the Indians next day. After breakfast of the following day when the men were sent to their work, several of the Gens-du-fou became very troublesome and impertinent, handling and asking for everything they saw—one wished to

have the carpenters edge, another the tracking line of the boat, and so on, and although they were told not to enter the store two of them stepped over the small barricade while my back was turned, and were examining the loaded guns in my tent, they were again told to go out, which on their refusing to do, I shoved one of them out by the shoulders, and the other followed of his own accord in double quick time. They then demanded guns, beads and axes on credit to be paid for in the fall; this I refused telling them that we had few of these articles this year, but that we never gave credit to any one unless we knew them well. They said, the Russians were once the same, they would not give them what they wanted, but they (the Indians) killed a number of their people and pillaged one of their Forts on the coast, and ever since that they had been refused nothing. I had before heard of their murdering some Russians at a small outpost but took their repeating the story here as a rather bold threat. They were answered that if they attempted that here they would find themselves greatly mistaken, that we were a different people from the Russians and not so easily frightened, we were always prepared against enemies, we did not come here without guns to defend ourselves, and we did not mean to give away our goods for nothing, but they would be well paid for what they brought, and if they came as friends they would be always well treated. After some more quibbling they professed to be our friends, still maintaining that they could trade cheaper in several things from the Russians than from us. Two of this party belonged to a band called 'Naheiy'¹ who inhabited the country about the source of Grand River,² one of the others belonged to the upper band of 'Gens-du-fou,' he had been at the Peely³ and gave me a very clear description of the upper part of this river and the adjacent country. The day was wound up as usual with a great dance in which the chief brother did not join, while the others danced

1. Dall's Nehannees. According to Petroff, the Nehannees, Tutchone-kutchin, and other groups living on the upper Yukon river, between the boundary and Fort Yukon, are members of the Han-kutchin tribe. They are, he says, known to the traders as *gens des faux*. Dawson says the Hudson's Bay Company's people applied the name Nahanie or Nahaunie to a group of tribes, on the upper Yukon.

2. This is evidently the same river which Murray elsewhere calls Gravel. Probably 'Grand' is an error in transcription of the original manuscript.

3. Peely, i.e., Pelly river.

and sung he retired to a distance and bewailed most pitifully the death of his brother. After the men had retired to their cabins, the chief brother, noticing that the Interpreter and I were on guard, came forward and told us to go to sleep, some of his young men, he said, had not spoken well, but they meant us no harm, they were our friends and he would make them all sleep with him at a distance from us. He was told that we had no apprehension of danger from them, but it was a custom of ours to keep watch always at night until we had our Fort completed. They left next morning in peace and quietness, with promises to return in the fall if they were successful in hunting, but if not, they might not again see us until spring, when they returned from the mountains. Several stragglers of this party came in between [then?] and fall, with fresh meat and deer skins, which they generally traded for ammunition and tobacco, but we found them always more troublesome and difficult to please than the Indians of this place. The only other strangers, except one of the Russian hunters, that came here in the fall, were four men of the 'Neyet-se-Kootchin,'¹ a band of about forty men, whose country is to the north of this near to the polar sea, they have never seen either the Russians or our people. These four arrived in company with two Indians of the upper band, one of them had a gun and what little meat they brought was given for ammunition. They said most of their people would likely visit us in the spring on the last snow. They were easily settled with and pleased with whatever was offered them.

These are some of the principal arrivals during summer and fall, and enough to show you the way we were received by the several bands, and the way they were treated by us. Very few days passed without some Indians coming in, and *any amount* of talking had to be *done*. One and all were treated with uniform kindness and respect, at same-time teaching them to respect us, keeping them always in their own place, and never allowing the men to use any liberties with them nor make any bargains whatever with them without permission. Some of the men, particularly the Canadians, were greatly displeased at the discipline I so rigidly enforced, having been accustomed at

1. Richardson's Neyetsè-kutchi, and Natsit-kutchin of Petroff. Murray elsewhere calls them *gens de large*. See previous note.

Peels River while *old Lapiers*¹ was in command to have too much of their own way and trade geese and meat from the Indians whenever they chose, this was strictly forbidden here. There is nothing that spoils Indians so much as allowing them to trade with the men, or become too familiar with them. The men had no occasion to trade anything; never in the Indians country were people better fed than here during summer and fall; mostly fish and dried meat, nets were always set in the river, and now and then we had a meal of fish, and often pemmican and flour when the dry meat was bad, and the men had hard work—but the more we have the more we desire, an adage peculiarly adapted to the voyageurs of this country, they had been accustomed to so good fare during summer, that latterly they became very nice, and turned up their noses at dry meat that a year ago at Peels River would have been considered a God send.

Privations are often endured in establishing a new country, of which we have had several salutary lessons in this district, the first year at Peels River and the west branch, *perhaps* at the present day, although little was known of this country, I came here with no other idea than that we would be ably provided for. The trading of furs was the object of our being sent here, and has received a due share of attention, but my energies for the first season were more particularly directed to the procuring of provision which if properly set agoing, and the Indians encouraged at first requires less trouble in after years.

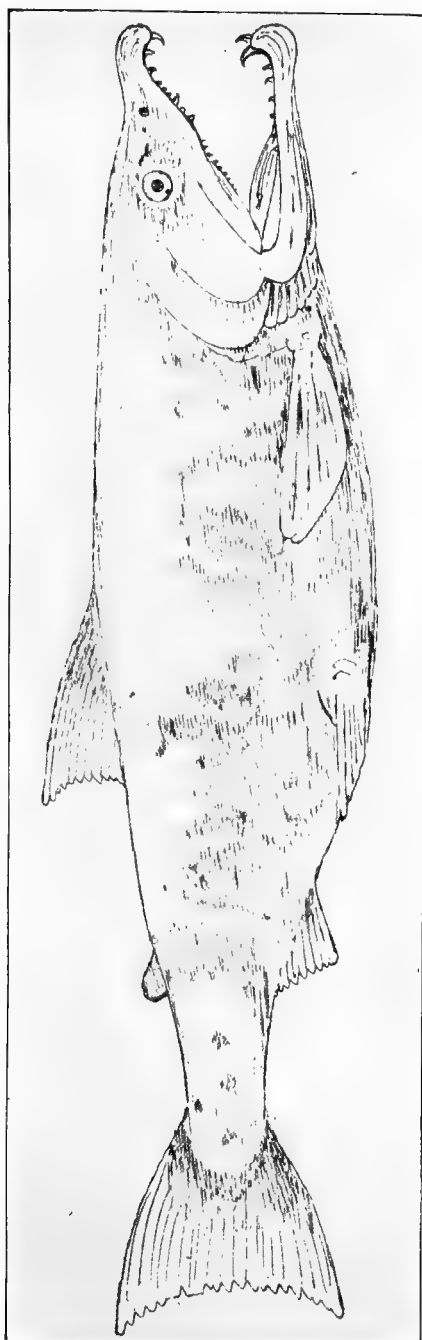
Both branches of the trade were as prosperous as I expected, or could almost have desired with the means at my command, and I assure you, that when 'gloomy winter' showed his heavy face, it was a source of great consolation and thankfulness when I looked into the well filled store, to know that there need be no *hungry bellies* at the Youcon.

Immediately after our arrival the fishing was commenced, and nets set regularly in the river but with little advantage until the beginning of September when the trout began to ascend, but they lasted only about three weeks, during which time the labours of two men and an Indian, with thirteen nets, produced 1,380 fish. Our nets were made in good time, and

1. Old Lapiers, or Lapierre, after whom Lapierre House was named. He is mentioned in some of John Bell's unpublished letters.

was generally the occupation of the invalids, for it was seldom but some of the men were cut and lamed. A Peels River Indian who accompanied us from Lapiers House was engaged to assist the fisherman, and Indians paid to show the different lakes around. The first trial was in a large lake to the south-west of this, but with no success; they then went to a chain of small lakes or rather a deep river¹ a day's journey farther on, where the Indians make dried fish in summer. They remained there until the water fell too low, 600 large white fish were caught and placed 'en cache,' but on seeking for them in fall they were found to be eaten by the wolverines. After the river fishing was at an end some small lakes to the N. West (a day's journey from this) were tried, and 460 large and excellent fish were taken which we got home in safety by the dog trains. When winter set in we had over 1,800 fish in store, which has been of great assistance, but we may not always be so well supplied with other provisions, and I hope, if you send me a good fisherman, to have a larger stock next fall, as the lakes are now better known. The trout taken in the river are, I don't know exactly what. They are not fresh water trout, neither are they salmon trout, although they belong more to the latter species. They make their appearance in August, but are not plentiful until the beginning of September, when they ascend the river in immense shoals; when they first make their appearance they are tolerable eating, have a silvery tinge on the back and upper part of their sides, the belly is of a dark brown and green, and the lower part of the sides blue; but before they disappear towards the end of September, they lose their bright color, are soft and lean, and of a strong rancid taste. The men get tired of them in a few days if served out constantly for rations. They have a large head and mouth, the upper and under jaws are much crooked inward and teeth like the fangs of a rattlesnake, they are altogether a very ugly and ferocious looking fish; they weigh from 4 to 7 lbs. each. I took a drawing of a large fellow in the fall and now copy it to show you what sort of 'critters' are in the waters of the Youcon. There is another and smaller kind without teeth, a smaller head and still more crooked snout, they are of a transparent scarlet color, the flesh is red like the salmon and similar to it in taste and

1. Probably Birch or Discovery creek.



The King Salmon.

quality; only a few of this latter sort are taken, and then only at the last of the season. The real salmon also ascend this river, and are the first to make their appearance, one only (and a small one) was taken in our nets, but the Indians kill a number every year by barring the smaller channels of the river and setting willow baskets constructed for the purpose. Several large salmon, dried, were traded from the Indians, a piece of one I sent you in winter which I hope you received, from the appearance of them when dried I would suppose them to weigh from 15 to 20 lbs., some very large ones are said to be sometimes caught by the Indians. There are several kinds of white fish here as elsewhere, but we have them generally larger than common, some of them weighing $6\frac{1}{2}$ and 7 lbs. Those taken in the lakes are large and of a superior quality, three are sufficient for a man's daily allowance, the river trout are dealt out in the same way. Pike are plentiful in both lakes and river. Inconnu and Loche are found here the same as in the McKenzie. The salmon and trout are said by the Indians to be better lower down the river, and far up they are very lean and often found dead on the beach, which may be the effect of their long journey from the sea. They do not descend the river until the ice begins to set fast, but then follow the main channels and very few are taken. So much for the *Fishes*.¹

The building and other work was pushed forward as quickly as possible, but the dwelling house was not made habitable until the end of August when we all removed into it, appropriating two rooms for the goods, furs, and provisions. We got into the house just before the cold weather commenced, and although the rooms were in an unfinished state we felt very comfortable after being so long in the open air.

The store was finished in October 25th, that is the walls and roof, and we had much difficulty in covering it from the

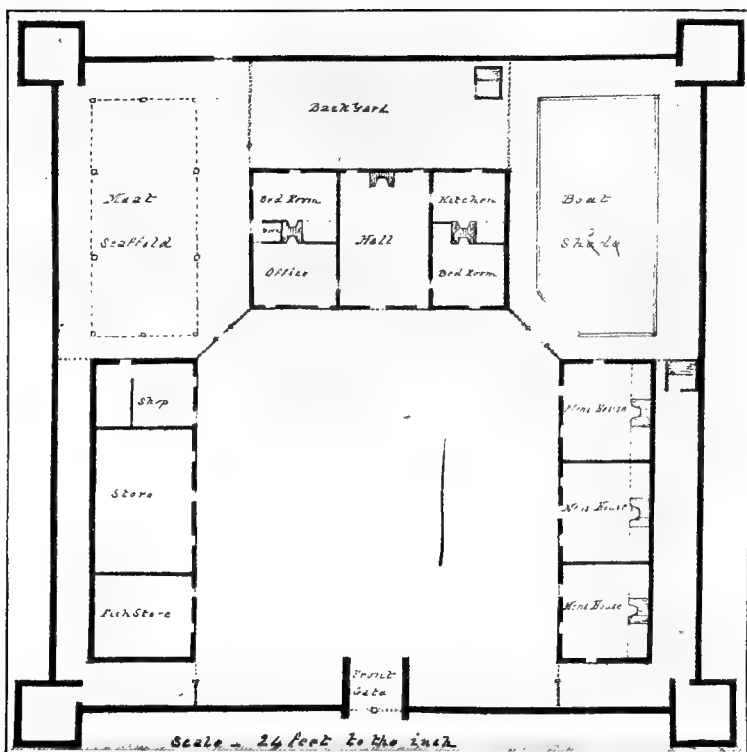
1. Murray's 'ferocious looking fish' with 'teeth like the fangs of a rattlesnake,' is the King salmon (*Oncorhynchus chonicha*); the 'smaller kind, without teeth, a smaller head and still more crooked snout,' is probably the Humpback or Dog salmon (*Oncorhynchus kisutch*); and his 'real salmon' is, as far as one can judge, the Red salmon (*Oncorhynchus nerka*). The inconnu (*Stenodus mackenzii*) is first mentioned by Mackenzie in his 'Voyages.' The loche is *Lota maculosa*, variously known as the methy, loche, ling, maria, losh and burbot. All these fish are found in the Yukon, and are minutely described in Edward W. Nelson's 'Report upon Natural History Collections made in Alaska, 1877-1881.'

bark being too dry and brittle, the most part of the roof was made water tight, but it will again require to be covered on our return from Lapiers House.

The dwelling house and store was all the building that could be completed, and although it might sound to you, that little work was done for the time and number of hands, still if you saw it you would think otherwise. Had we squatted down in the first point of a good timber, and begun a fort like some of your outposts, it might have been completed in the same time, but we are far from large timber, and building on a more extensive scale than usual, both house and store are substantial and well finished work. The other buildings and pickets will be the same and everything carried out in conformity with the plan drawn out, and when the Fort is finished, as I hope it will be next fall, I calculate on it being the best and strongest (not excepting Fort Simpson) between Red River and the polar sea; it will occupy some time and require more labour, but a good fort may be needed here before many years. The dwelling house is 46 x 26 feet containing five compartments—a hall in the centre, an office or sitting room and a bed room in one end, assistants room, and kitchen in the other. It is built of well squared 8 inch pine¹ logs, the partitions are also of squared and closely jointed logs, ball proof, and as we had no pickets around in the first season, small loop holes were made on each side of the hall neatly fitted with blocks of wood which can be opened at pleasure from the rooms, and used for musketry in case the Indians should attempt to play us the same trick they did to Mr. Campbell and his party at Duses Lake.² The store is only 40 feet in length at present, but an addition of 16 feet is to (be) made next season for a fish store, etc. The men's houses will be the same length 56 feet containing three rooms, one of which is intended for a carpenter's shop, etc.

1. Murray's 'pine' must have been spruce, as pine does not grow in this locality.

2. Dease lake. In Robert Campbell's own narrative he says, 'On returning to Dease's lake, we passed a winter of constant danger from the savage Russian Indians and of much suffering from starvation. We were dependent for subsistence on what animals we could catch, and, failing that, on 'tripe de roche.' We were at one time reduced to such dire straits that we were obliged to eat our parchment windows, and our last meal before abandoning Dease's lake, on 8th May, 1839, consisted of the lacing of our snowshoes.'



Plan of Fort Yukon.

A house or shed capable of containing two boats is to be erected at the end of the men's houses and a meat scaffold as at Fort Simpson at the end of the store. The pickets will not be pointed *poles* nor *slabs*, but good sized trees dispossessed of their bark and squared on two sides to fit closely and $14\frac{1}{2}$ feet in height above ground, 3 feet under ground, making a solid wall of 9 or 10 inches at the bottom and 6 or 7 inches at the top, secured together by being morticed into a solid frame along the top, and the same in the foundation. The bastions will be made as strong as possible, roomy and convenient. When all this is finished, the Russians may advance when they d——d please.

Although the building was finished for the first season, there was no want of work both in and out of doors: The houses had to be plastered and innumerable little jobs done before they were made comfortable for the winter. Roots for boat timber had to be found and dug up before the ground was frozen, saw logs cut and brought from the islands before the river set fast, birch wood, for meat and wood sleds and snow shoes to be brought from a great distance, fire wood to be cut, our fish to be brought home, and a thousand other things which kept us all constantly employed. Indians continued to arrive with both furs and provisions, more furs than I could pay for with the goods they wanted, but not so much meat as I expected, a large party of Indians had been at war with another band (the people of the Shade)¹ down the river, and of course had little time to make provision. On their return a number of furs²and I had much difficulty in settling with them. They did not object to our prices, but all demanded beads, the few remaining lbs. were divided amongst them, and one of the guns; when it was known that we had no more beads their furs were kept back, some of them were left with us to be kept till next year and paid for in beads, but I had quite enough of this mode of trading at Peels River. They were told that we would take care of their furs until next year, and trade with them only when the goods arrived. I however promised that we would have more beads next season, and advised all those who had furs in *cache* not to

1. Richardson's *Testsè-kutchi*, 'people of the shade' or 'shelter.'

2. Several words missing here in manuscript.

dispose of them elsewhere. With this party was an Indian of the 'People of the Butes,'¹ who had been Fort Hunter to the Russians, he brought nothing with him, but came, I suppose, out of curiosity. The Russians had again been on this river, at their former rendezvous about the same time or perhaps a little after we arrived; I heard this in August, and was put out of suspense at the time of being much troubled with them that season. They brought plenty of beads and took away a great many furs. Here it is very different, furs were brought in and could not be traded, and it was a vexatious thing to see them taken back for want of goods. The box of beads were gone, the box of guns ditto, except two guns kept for the defence of the place, the roll of tobacco was on its last legs, and our shop, except cloth and ammunition nearly empty. The 'Gens-du-fou,' distant Rat Indians, and one of the bands from below had all promised to come here in spring, and having nothing to settle with them, I determined on sending to Peels River for a roll of tobacco and some knives to be taken from the year's outfit, as dogs had to be sent at all events to bring the boat rails and other articles indispensable for our spring operations. The men with five dogs and two sleds were dispatched for Lapiers House on November 21st in good time for the letters to reach Peels River before the departure of the usual winter packet. An Indian acquainted with the country was engaged to accompany them and promised if the weather was favourable to take them to Lapiers House in fourteen days. The men and dogs were provisioned for fifteen days, and the men received a little ammunition in case of accident or being detained by the weather. The men were eighteen days on the winter trip to Lapiers House, and nineteen in returning with their loads. On going up they were delayed one day on account of the weather, but I have since learned did not hurry themselves, as the Indian who accompanied them supplied them

1. Richardson's Tanna-kutchi, or 'people of the bluffs'; Petroff's Tennankutchin (Mountain men), or Tennan-tnu-kokhtana (Mountain River men), occupying the mountainous basin of the Tennanah river, an affluent of the lower Yukon. The Tanana, it is now spelled, literally Tenan-na or Tenan river, said to mean River of the mountain men. It was known to the men of the Hudson's Bay Company as Gens des Buttes river. According to Petroff, it is the most important among tributaries of the Yukon in size and beauty. It empties into the main river about thirty miles below the Ramparts, say 290 miles below Fort Yukon.

well with fresh meat, they had been complaining while at Lapiers House of my stinting them with provisions, but if they could come down with loaded trains in 19 days, they could scarcely go up light in 15.

Not many days after the packet was sent off (on November 27) I received very unpleasant news, and had it been in my power, would have sent off another letter to inform you of it at the time, but no more men could be spared, nor were prepared to undertake the journey so as to reach Lapiers House in time. The young chief arrived in the evening and informed us of the arrival of two Indians from the lower bands with men from the Russians. They had been sent to the Indians here with messages from the Russians who were passing the winter at the mouth of the river they descended, had a large stock of goods with them, were trading at much lower prices than formerly, and had better goods than us. The Russians were trying to incite the Indians here against us by telling them, that it was on account of our being in their country that so many of them had died in summer, that we were bad people, etc., and inviting the Indians to go to them with their sick friends as they had medicines to cure all diseases, that they were sorry they had not been able to keep their promise with the Indians here and visit their country in summer, they had been unfortunate in having necessary boats built, but next summer they would meet them farther up the river with plenty of goods. The Russians had taken the most effective plan to work upon the credulity of the Indians here, and I was greatly mortified to hear from the young chief that some of his followers believed what they had said and intended to go down with their furs by the first open water. I sent for one of these Russian Indians who was remaining with the lower band and heard a repetition of the whole story before several other Indians.

I had a long talk with them in presence of the stranger, and took good care to give the Russians a 'lick back' in their own coin. I explained particularly the motives that induced our opponents to send these messages, the cause of their lowering their prices, and succeeded in persuading them of the absurdity of the idea of our causing the death of their people, instead of that we were their best friends, and had brought medicines to

keep them from dying, etc. etc. etc., as for taking their furs below in spring they were their own masters, and could dispose of them to the Russians if they chose, but if they did so they would be sorry for it afterwards, assuring them that more goods would be brought here in summer. The Indians present seemed willing enough to hold on until next season, still a few days afterwards, a lot of beaver were sold to the Russians Indians for fancy beads, an article they could not procure from us and which they value above everything else.

When I wrote you in November, I had no idea of being troubled with the Russians until the following summer, but here they were, wintering farther down on the same river, with plenty of goods, and trading at prices far below our tariff, and endeavouring to set our own Indians against us; the receipt of this intelligence was very disheartening to me. I have been accustomed to the *strongest kind* of opposition while in the south, and would like nothing better, as I love a row, than to have it again, but I should wish also to have the means of competing.

But here we are far across the Frontier, and with little but promises to give the Indians. But before saying much on this subject, and having partially narrated our doings until the end of November, I may as well bring you to the end of the year. The month of December passed off more slowly than any other since our arrival, we had fewer hands, but I need not enumerate the work done. We saw no Indians except those in our immediate neighbourhood, who brought in now and then some rabbits, and sometimes a few lynx skins, and we paid in ammunition and tobacco. The rabbit of this country are fully larger than about Fort Simpson, and the quantity we received sufficient for rations from three to five days in the week throughout winter. Christmas and the 1st of January were, as in other parts of the country, kept as holidays, and passed off quietly and respectably enough, though with myself about as dull a new year as I ever spent, my usual high spirits being brought to a very low ebb, by the recent intelligence received of the Russians.

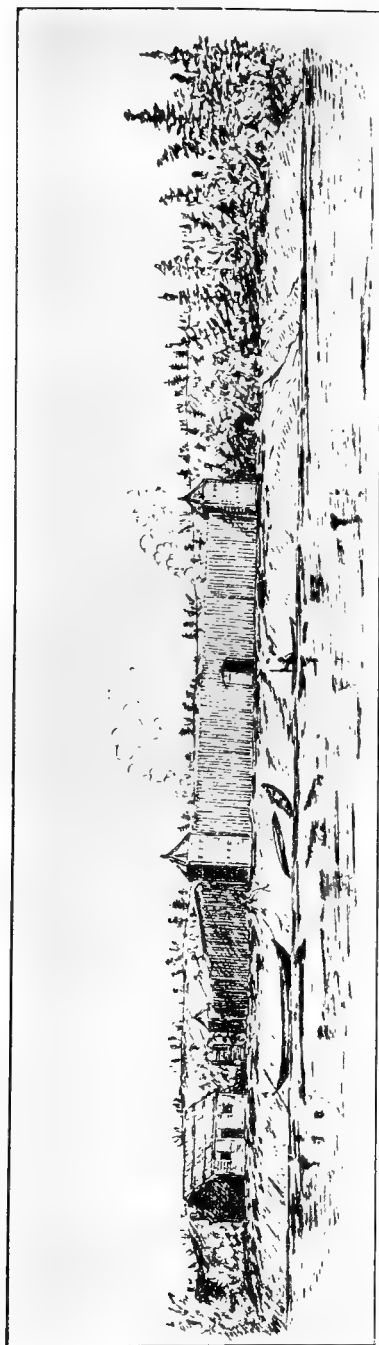
The first time the Russians came to this river, was the year before Mr. Bell was here, and ever since then (for the last four years) they have come regularly during summer with a boat,

and traded with several of the lower bands. Of the first two years, little is known by the Indians here, of their third visit I have already informed you of all I know, their anxiety to procure dogs from the natives, and giving so high prices for them, convinced me at the time I heard of it, of their determination to extend their trade on the Youcon. Last summer they arrived as usual at the same place, the mouth of a large river they descended, which falls into the Youcon, perhaps, by the windings of the river, 350 miles below this.¹ They intended to have brought two boats, and proceeded farther up the river, not only to trade with the Indians, but to explore the river to its source. They had not been able to get the necessary boats built, but promised to be better prepared next (this) summer. The boat they had was almost the same size as ours, and made of, which our Indians informant describes as *dressed parchement*, similar to the men's carrying straps which he saw here. Last summer they brought more goods than formerly, principally beads, common and fancy, white, red, and several shades of blue. The common white beads were usually traded higher than with us, of the blue beads a little larger than a garden pea, only *ten* were given for a beaver skin, except kettles, guns, and powder, every other article was higher than with us. Tobacco and snuff were traded very high, also the small shells, some of which you sent me from Ft. Simpson, but I am not aware of their proper name,² these are traded in this country 6 and 8 for a beaver or three martens, a box of these shells here

1. The Russian post of Nulato stood on the north bank of the Yukon, a few miles below the mouth of the Koyukuk, and about 400 miles from the mouth of the main river. The 'large river' here referred to is evidently the same which Murray elsewhere calls Russian river, and which is mentioned under that name in Sir John Richardson's 'Arctic Searching Expedition.' Murray's confusion of the lower Yukon and the Koyukuk will be dealt with in a later note. His letter to Richardson, quoted in the introduction, makes it clear that he afterward discovered his own error as to the course and mouth of the Yukon.

2. Dentalium and Arenicola shells. 'The dentalium,' says Petroff, 'was an ornament much prized by men and women. This shell did not exist in the Russian possessions, but was imported from the British colonies north of the Columbia river. . . . At the time of Davidof's visit to Kadiak, in 1802, the price of one pair of these shells was a whole parka of squirrel skins. Davidof relates a tradition of the Kaniagmute to the effect that in the country of the Thlinket, far to the southward, there was a lake from which the dentalium or hyqua shell was obtained, the mollusks being fed with the bodies of slaves thrown into the water, a story evidently invented by the Thlinket to enhance the price of this commodity, of which they had a quantity.'

would be worth over *two thousand pounds*. Besides the above mentioned articles, the Russians bring to this country blankets, capots, cloth, (of the latter two almost none are traded) powder horns, knives, fire steels, files, iron hoops for arrow heads, iron pipes, common arm bands, awls, rings, and small brass coins similar to our old farthing, with which the Indian women fringe their dresses, they bring no regular axes, only a flat piece of steel shaped something like a plane iron, which the Indians fasten to a crooked stick with battiche, and use it as we would an adze, they say, and very likely have, other articles which I have not seen. They have both fine and common guns, but our guns are always preferred to theirs; formerly they brought only sheet iron kettles but last summer I am told they had copper kettles the same as ours. The Indians here being at war, last summer, with the lower bands, prevented any intercourse between them, and was the cause of our not hearing sooner than in November, of these particulars. It seems the Russians had left or were about to leave on their return, when they heard of our arrival here; they immediately set about building a house; this finished, one or two men were left with the remaining goods, while the others returned to the portage with the boat, and as they had plenty of goods in winter, very probably some more were sent in the fall. Their prices were lowered at once, kettles, knocked down from twenty to ten skins each, common guns to ten skins, above a pint of powder given for a measure, and beads and other things, above a half cheaper, and cloth which they cannot dispose of, given for nothing. The *master* himself is the person that remains below in charge of the house, it was he that sent the rascally message to our Indians, and if he ventures up this length in summer, as he has promised, I think it very probable that he will get his head broken for his trouble, but they are the last people I wish to see here, as should they come we will certainly get into a scrape. I have told the Indians here, that, after our building is finished, perhaps next fall, we will go down the river to where the Russians are, and will likely build another Fort there. I circulated this report merely that it might reach the Russians, and perhaps be the means of preventing them from coming farther up the river for the present. Their means of communication with the coast is merely as I informed you last spring, but with



Fort Yukon.

a portage, instead of the rivers being connected by a lake. I have seen two Indians who were at the Fort in the coast and acquainted with the inland route, I had them to describe it to me and chalk it down on the floor. The river they ascend from the coast must as far as I can judge fall into Norton Sound, or perhaps Kotzebues Sound, but I think the former, as there were two large vessels at anchor while the Indians were there, and I am not aware that ships are sent regularly through Behring Strait. At the mouth of this river is a large Fort, a short distance above there are strong rapids, and farther up is a small trading Fort which has been established for many years, above it are falls and farther on mountains, on the other side of which passes the river that falls into the Youcon. They trade their goods across the portage in winter with dogs, and have a house on this side, from which they descend to the Youcon with a boat in summer; this river must flow in a north east direction, as is described as being larger than Porcupine River (that, we descended). Two or three years since a boat came down another river (but not so far as its mouth) that joins the Youcon a great distance above this, this river flows from the south, is very deep and with little current. The Indians were not acquainted with its course but described distinctly enough where it joined the Youcon, a large lake where one of its branches takes its rise. The Russians have also been on the head waters of this great river, not so far down as the forks of the Lewis and Pelly but below the 'Great Lake' the place I have marked as shown by the Gens du fou, but I am not aware that they come there regularly.¹

1. Russian trading establishments and explorations on the Yukon have already been discussed in the introduction. The river falling into Norton Sound or Kotzebue Sound, as Murray supposed, was evidently the Kuskokvim, which, however, empties much farther south. The description fits the Kuskokvim. The small trading fort would be Kolmakof Redoubt, an old Russian trading post, about 200 miles above the mouth of the Kuskokvim. The first establishment here was built by Ivan Simonson Lukeen in 1832. It was partially destroyed by the Indians in 1841, and rebuilt by Alexander Kolmakof. The mountains referred to are the Kuskokvim range, and the river beyond, the Tanana, Murray's River of the Mountain Men. The portage from the Kuskokvim to the Yukon is by a series of small lakes and streams, at the point where the two rivers most nearly approach each other. No large Russian fort ever existed at the mouth of the Kuskokvim, but what Murray heard of from the Indians was probably Alexandrovsk, at the mouth of the Nushagak, built under the orders of Alexander Baranof in 1818 or 1819. It is more difficult to explain Murray's references to Russians on the upper Yukon

This is all I have been able to ascertain respecting the Russians trading on the Youcon, and quite enough to show that it is well known to them. They discovered it here, that is *below*, a year before Mr. Bell, and very probably were also ahead of Mr. Campbell on its upper branches, of their trade there I know little, but below this, from what the Indians say, they have carried off an immense quantity of valuable peltries.

I will now attempt to give you a short account of this great north western valley and its inhabitants. Since my arrival here and also while at Peels River, it was my study to obtain from the different bands of Indians a description of their respective lands and rivers, and by questioning so many and comparing the several statements, I have been able to form some idea of the course of the Youcon and other rivers, of which hitherto very little was known, and to make it more plain, I have drawn out a sort of *map*,¹ which you can lay before you while you peruse the following brief but imperfect account. The country between this and Peels River I have partly described as far as my own observations went: the courses of Rat and Porcupine

waters. A reference to the accompanying map—much of the data for which Richardson evidently got from Murray—shows the confusion that then reigned as to the relative positions, directions, &c., of the Liard, Lewes, Pelly and Frances rivers. The 'Great Lake' may have been simply the Pacific, or one of the great channels along the coast, confused in Indian reports. The Russians may have ascended the Stikine, and portaged over to Dease lake, though this latter is hardly probable. It may or may not be significant that the Indian name for Dease lake is Too-tsho, 'Big Lake,' and Dease river, Too-tsho-tooa, 'Big Lake River.' Teslin lake would, however, more accurately meet Murray's description. Richardson shows both 'Great lake' and 'Russian Rendevozz' on his map, and says in his narrative: 'The Lewis flows from a large sheet of water, lying within the English boundary, but named the Russian lake, because Mr. Roderick (*sic*) Campbell . . . met there a party of Russian traders.' In Simpson's 'Narrative of the Discoveries on the North Coast of America' (pp. 172-3), it is said that Campbell 'met on the banks of a river called the Stikine . . . a great concourse of Nahanie Indians, assembled round a party of Russians. The latter ascend the river in boats to a cataract far within the British lines . . . There were a number of men, commanded by four ragged, drunken officers, who spoke a few broken words of English.' This account is so circumstantial, and evidently obtained from Campbell himself, that one is at least safe in assuming that the Russians ascended the Stikine, whatever or wherever the Great Lake may have been.

1. This map has unfortunately disappeared. It is probable, however, that we have the substance of it, with Murray's later corrections as to the course of the Yukon, in the map accompanying Richardson's 'Arctic Searching Expedition.' On this map will be found many of the names applied by Murray to rivers, lakes and mountains in the Yukon country. A reduced tracing of a portion of this map accompanies this journal.



'Gens du fou' who had been at the Pelly were here in summer, and with them another Indian belonging to the 'Men of the Forks' (a band near to the forks of the Lewis and Pelly) who had two years before been at the Great Lake the principal source of the river; they described the Forks of the Lewis and Pelly where Mr. Campbell had been, the Lewis River and the house on the west side of the mountains near Frances Lake where some of their people had traded deer skins.¹ To fix a point for the forks of the Lewis and Pelly, I have marked where I conceive, from a perusal of some of Mr. Campbell's documents while at Fort Simpson, Frances Lake to be situated. The *Pelly*, alias the *Youcon*, alias the Colvile,² takes its rise from a large lake to the south of the forks of the Lewis and Pelly and it is most probable, if it is near where I have placed it, that Frances River is one of its principal feeders. Nothing was known of the extent of the 'Great Lake' (as it is called) by the Indian, he had only been there, and made mention of the Russians having come a short distance down the river from the Lake and traded with a band of Indians at the place I have marked *Russian Boundary*. The course of the river from the Pelly downwards as drawn by the Indians is to the north west, and at one place passes between high rocks or ramparts from which the Indians there derive their name. The next river of any importance is 'Red Island River' which joins it from the north west,³ there is only one mountain between its source and that of Peels River, therefore Peels River does not take its rise from near Mount Traffic as has been supposed. The river to the north of Frances Lake that is known to flow in a north west direction, must therefore be, although it may take a circuitous route, the Lewis,⁴ as there is not extent of country enough in

1. Campbell's Glenlyon House, built in 1840, and afterwards known as Frances Lake House or Fort Frances.

2. As already stated, this serious error was afterward corrected by Murray.

3. Probably Stewart river, whose headquarters approach those of Peel river. The direction is, of course, entirely wrong. No stream rising near the source or headwaters of Peel river could join the Yukon from the northwest.

4. Here and elsewhere in Murray's narrative, his references to the Lewes and the Pelly must be transposed. He has confused the two streams. His Lewes is the Pelly, and his Pelly the Lewes. Richardson's map makes same error. The lake which Murray mentions as the source of the Pelly (Lewes), is doubtless Teslin lake. Both narrative and map give Frances river as connected with the Pelly (Lewes) by the Great

any direction to create so large a body of water as the Lewis is described to be. Between the Lewis and Red Island River is a flat and barren prairie or desert which the Indians take four days to traverse on foot, during summer they have to carry water for the journey as none is to be found when they usually make the *portage*. Farther down on the *Youcon*, another river of considerable size enters from the east,¹ and below that is the deep river with little current on which the Russians made their appearance with a boat and traded with the Indians, one of its branches, as already described, comes from a large lake, and no great distance from that another river flows in the opposite direction, which I take to be *Comptrollers River*.² The *Youcon* flows on through the extensive country of the *Gens du fou* to the north west, making several large turns and being joined by several streams from the mountains on each side, it may probably cross the boundary about Latitude 64, or just as likely farther to the north.³ About sixty or seventy miles above *this place*, it passes a ridge of high mountains, where are steep rocky banks, these are called the 'Little Ramparts,'⁴ from that to where we are, it runs through a low and flat country, continuing in the same direction and making fewer bends than before, three miles below this it is joined by Porcupine River, proceeding onwards to the north west for a good distance it again cuts its way through the same range of mountains it passed above.⁵ Below they are known as the 'Big Beaver Mountains,'⁶ it then takes a 'Grand de tour' to the north, and must run nearly north until its confluence into the sea. About *two days' journey* from the Big Beaver Mountains its waters are increased by the

Lake (Teslin). This is, of course, altogether wrong. Frances river forming the upper waters of the Liard. Murray's Frances river would seem to be the Stikine, warped out of position by confused Indian reports.

1. Klondike river, probably.

2. That is, the river flowing into Comptroller's Bay, now known as Copper river. The river Murray had in mind may, however, have been the Chilkat.

3. The Yukon crosses the international boundary, according to C. A. Schott, in 64° 40' 51".

4. Lieut. Schwatka describes the Upper Ramparts of the Yukon as beginning at Old Fort Selkirk (built by Robert Campbell, in 1848, at the confluence of the Pelly and Lewes) and extending downstream some 400 miles.

5. The Lower Ramparts, beginning a little above the mouth of Tanana river and extending up the Yukon 100 miles.

6. Tanana hills. These appear as the Big Beaver mountains on Richardson's map.

'River of the Mountain Men,'¹ a large body of water. It enters from the south and runs nearly parallel with the Youcon; this river is famed for its abundance of Beaver. Next comes what I have marked Russian River, as being that they descended in the summer, which I have particularly described. At the mouth of this river the Russians have wintered and are now established.² Below that, very little is known by the Indians here, I have only seen one man, who in former years had been to trade with the Esquimaux, you have it nearly as I had it from him, with another river to the east and making a large bend to the east before it falls into the polar sea, where it assumes its modern name of Colville. The Indians here have very little idea of courses, but show distinctly enough the windings of the river and where other rivers join it. Had I not known where the *Colville* was, and gone by their account, I should have placed the mouth of the Youcon much farther to the west, and at a greater distance from us than it possibly can be. The river opposite this is about $1\frac{1}{4}$ miles broad, but so thickly studded with islands, that in one body it would be much narrower, the current is much stronger than that of the McKenzie, the water generally not so deep, but difficult to navigate from the numerous battures, shoals, and channels. The banks on each side are low, of a sandy soil, and easily cut away by high water, and to ascend the river by a boat, except with a sail and strong aft wind, is a most laborious and tedious business. The lands on each side, *here*, is comparatively low, with innumerable small lakes and swamps many of which have the appearance of being the former channels of the river. Large islands are now being swept away, while new battures appear to be forming, there are not so many islands further down, but the river is nearly of the

1. Tanana river, which joins the Yukon from the southeast about long. 152°. As already mentioned, this native name is said to mean River of the Mountain Men.

2. Nulato, below mouth of Koyukuk river. Murray may, at this time, have confused the Indian accounts of the Koyukuk, lower Yukon, and Kuskokvim—the lower Yukon or the Kuskokvim being his Russian river, and the Koyukuk what he supposed to be the Yukon. No doubt the Indians traded with the Eskimo on the Koyukuk, but they certainly did not descend to the Arctic by way of the Koyukuk and Colville, the headwaters of the two rivers being a hundred miles apart. The Colville drains into the Arctic near long. 151°. Although the accepted spelling is as above, Murray's 'Colville' is really more correct, the river having been named by Dease and Simpson, in 1837, after Andrew Colville, of the Hudson's Bay Company.

same description; where it passes between the Big Beaver Mountains it is much narrower and the current *very* strong. We are in the centre of the country belonging to the 'Kootchin-Kootchin' (People of the low lands) *low* enough land in all conscience; on every hand are small lakes, swamps and creeks, along the margins of which are interminable thickets of willows. The dry land (and where it is *dry* it is *dry*, being of a sandy soil) is mostly open, or having a small birch and willows, the only wood of importance is along the banks of the river or on the islands. To the northwest, west and south we are surrounded by lofty mountains varying from 40 to 100 miles distant, those to the south and south west are seen distinctly from this and have a very rugged appearance. Beyond them to the southwest as far as the Indians know it is all a mountainous country. From the mouth of the 'River of the Mountain Men' to the polar sea, the land is said to be very low and swampy and thinly wooded. The country on the north of Porcupine River, between the Youcon and McKenzie, is described as being generally of the same nature as in the vicinity of Peels River, where there are no mountains there are lakes and swamps. From the Ramparts on Porcupine River commence the Carribeux Mountains, they extend all along to the mouth of the McKenzie, they are smooth and barren, unless the moss and spare tufts of heather be considered verdure. The lands towards the sources of Porcupine and Peels Rivers are of a different nature, and the mountains rocky. I have seen two of the 'Naheiy' Indians, a band who inhabit the mountains towards the source of Gravel River,¹ and ascertained a little respecting its source. One, and the longest branch, springs from a lake, and the others from amongst the mountains, he says it is much nearer from the head waters of Gravel River to Frances Lake than to the upper part of Peels River, therefore there is little chance of effecting a communication between

1. Gravel river, a tributary of the Mackenzie, which it joins above Fort Norman, about long. 125°. Its headwaters approach those of Macmillan and Stewart rivers, tributaries of the Yukon. In 1898-99 prospectors wintered on the upper waters of the Gravel, and crossed by the pass at its head to the waters of the Stewart, reaching Dawson about June, 1899. The river is laid down on the 1899 map of parts of the Yukon Territory and Mackenzie district in 1908 from sketch maps prepared by these prospectors. It was surveyed for the first time by an officer of the Geological Survey.

this and the McKenzie from that quarter. Between this and the forks of the Lewis and Pelly, the country is reported to be similar to what it is here, but better wooded, the river also bears the same character, rapid with many shoals and battures, and difficult even for canoes to ascend.

I think there could be no better location for a trading establishment on this river than where we are: We are, as it were, in a central part of the country and within reach of five different bands of Indians, and I would calculate on,—but the Russians being so near us have played the devil with all my calculations—I mean to say, that had we no opposition I could reckon with almost a certainty on over 300 *men* trading regularly here. This country abounds in all the various descriptions of fur bearing animals common in other southern districts, except Fishers. Otter are very scarce or the Indians kill few of them, but for beaver it is inferior to no other country, martens do not appear plentiful in our immediate neighbourhood, still the Indians kill great numbers, Foxes the Silver and Cross predominating, are very numerous, wolverines are also very plentiful, the large gray wolf is often seen, and there are too many Lynx for the rabbits to continue long as abundant as they have been the past winter. We have the Black, Brown, and Grizzly Bear, the latter kind are most abundant and infest the mountains to the south and south west and the intervening country, they are large and of the same ferocious nature as those in the south, very few are killed by the Indians, who avoid meeting them as much as possible, the bear generally making the first attack, and unless there are a good party of Indians together to give battle they generally make their escape in their canoes or by ascending trees. For moose, I believe this country to be unequaled during the spring (March and April), it only requires a good hunter and a gale of wind to kill an animal when it is required. Rein deer frequent the high lands about the Ramparts of Porcupine River, four days' journey in winter from this, only the large description of Rein deer are found on the mountains to the south.¹ We have any quantity of rab-

1. In connection with the various fur-bearing animals found by Murray in the Yukon country, reference may be made to Nelson's 'Report upon Natural History Collections made in Alaska, 1877-1881,' and to Petroff's 'Alaska,' p. 55, *et seq.*, with his interesting series of maps illustrating the range of the different fur-bearing animals.

bits, and as for fish I have already given you a particular account. The soil is of a dry and sandy nature, the best suited for agricultural purposes in a cold country like this, how far it will be successful I cannot yet tell, but we are about to give it a fair trial. I begin to fear the summer season is too short, the few potatoes planted after our arrival (on July 1st) were allowed to grow as long as the season permitted, and taken up on the 13th of September, after the *rivers* were blackened by the frost. Only *ten* potatoes were planted, but cut in pieces as usual and our whole crop was nearly a gallon, varying in size from a pea to a partridge egg, only about half a dozen of the largest has kept over winter, although kept in the house in dry sand and packed around with dry moss. The balance of the potatoes brought with us, were placed in a keg filled also with pure sand, the best preservation for decay, in order to preserve seed in some way or other, in examining said potatoes in the fall—lo and behold, they had brought forth young, and nourished them with the juice of their own bodies, for they could draw precious little from pure sand. Ground is now being prepared and in a day or two more they will be planted and some barley sown, also the other seeds you were so considerate as (to) send me, and may God grant us a genial summer say I, though it should only be for the 'tators,' for I would fight with the pigs for them.

As for cattle, hay could be found for a thousand head, and without much trouble, there are swamps, which in fall, are waving with long grass around us in every direction.

The population of the country from the Pelly to the Polar Sea—I mean along the Youcon and its tributaries—is from what I can ascertain close upon 1,000 *men*, or men and boys able to hunt,¹ for women and children it would be needless to

1. See Richardson, I, 397, to same effect. Richardson, in fact, here follows Murray's journal almost word for word. The spelling of tribal names differs in some cases. Richardson has *Artez-kutchi*, this copy reads 'Arlez-Koochin'; Richardson reads *Tathzey-kutchi*, this copy 'Fathzei-Kootchin'; this *Trätzè-kutchi* reads 'Frawtsee-òotchin' here; and his *Zèkà-thaka* or *Zi-unka-kutchi*, becomes 'Teeathaka' or 'Tecunka-Kootchin.' To some extent these differences may be attributable to different readings of the original manuscript; and as Richardson no doubt had opportunities of hearing the names pronounced by Bell and others who had been to the Yukon, it will be safe to assume that his versions are substantially correct. 'Arlez,' in this copy should no doubt

make inquiries, I suppose there is a reasonable proportion. Having only seen three men who had been as far up as the *Pelly*, I could get little knowledge respecting the tribes about the Lewis and Pelly and towards the Great Lake, but between the Pelly² and the coast are a band called the 'Arlez-Kootchin' (Tough or hard people) numbering about 100. The 'Tchu-Kootchin' (People of the water) are also about 100 men, they inhabit the country about the sources of *deep river* and to the west of it. On the banks of the Youcon below the Forks of the Lewis and Pelly are the 'Fathzei-Kootchin' (People of the Ramparts) there are only about 20 men in this band, these with the others above mentioned trade with the Russians on the coast. Between them and the lands belonging to the natives of this place are the 'Han-Kootchin' (People of the water) known as the *Gens du fou*, this is the largest band of any hereabouts, there are in all 230 men. They are divided into four bands, the uppermost one is the 'Frawtsee-Kootchin' (People of the Forks) the *Gens du fou* inhabit a great extent of country, from the sources of Porcupine and Peels River to those of the River of the Mountain Men; they often visit the Russians on the coast, but frequently trade with intervening Indians. A few of them used to go to Peels River, last spring there were 16 men, and *here* in the summer and fall we saw a good many but what they brought was of little value. The Indians *here* are the 'Kootcha-Kootchin' (People of the low lands) they are divided into three bands and number in all 90 men. Farther down the river are the 'Teeathaka' or sometimes called the 'Tecounka-Kootchin' of course (the people of this side, or the middle people), there are only 20 men, and like those here,

read 'Artez;' 'Fathzei' should be 'Tathzei;' 'Frawtsee,' 'Trawtsee;' 'Teeathaka,' 'Zeeathaka;' and 'Tecunka,' 'Zecunka.' Such mistakes in the transcription of initial letters in manuscript may, of course, very easily be made. Apart from these differences, Richardson's versions probably represent what he believed to be the more exact sound of the Indian names. So far as the numbers of men and boys in these various bands are concerned, Murray's figures may be compared with those of Chief Factor James Anderson, whose 1858 census is reproduced in Dawson's Yukon Report (Geol. Survey, 1887-8, 206B). Anderson gives the number of those frequenting Fort Yukon, Lapierre House, and Fort McPherson, as 1179, but this includes women and children, so that if the two estimates are even approximately correct, there must have been a considerable loss of population in the decade.

2. As before stated, all these references to the Lewes must be taken to refer to the Pelly, and vice versa.



Kootenai women and children.

except a few that may have seen the Russians none had any intercourse with the Whites. To the west of these are the 'Tannin-Kootchin' (People of the Butes) upwards 100 men, and farther down about the Forks of the '*Russian River*' are the 'Teytseh-Kootchin' (People of the shade or shelter), about 100 men. These last two deal regularly with the Russians, and have since the first appearance of the Russians below been in the habit of trading the furs from the Indians of this place. Towards the mouth of the river there are two other bands, usually called the 'Tlagga-tsilla' (Little Dogs) a name given by the Indians here; their number is not known, but is supposed to be considerably upward of a hundred men. It is believed that they have not seen the Russians, and dispose of what furs they may make to the western Esquimaux at the mouth of the river. The country around Porcupine River, but principally to the north of it, belongs to the 'Vanta-Kootchin' (People of the lakes) known at Peels River as the *distant Rat Indians*, about 80 men. The 'Letter Carrier' their chief with perhaps a third of his followers have traded at Peels River ever since the Fort was built. The 'Neyetse-Kootchin' (People of the wide country) are almost the same band with the others, as they have no particular leader, of these there are about 40 men, none of whom except four that were here in fall ever saw the Whites. The Indians that may be reckoned on to trade here, are the 'Kootcha-Kootchin,' about a hundred of the 'Gens du fou,' the 'Middle Band,' the 'Gens du Laye,' and perhaps fifty of the 'Men of the Lakes'—say 300 men—but if it were known that we had plenty of the goods most in demand, that is beads and guns, I would calculate on many more resorting to this place.¹

But I must give you a more particular description of the natives of this part of the world. The Loucheux Indians and those here speak the same language, there is some difference in pronunciation and a few words altogether different, but they are easily understood by the interpreter. The Middle Band and People of the Butes speak the same. The Indians to the

1. On the language and bonds of consanguinity and affinity of the Loucheux and Kutchin, as well as on the meaning and application of the latter name, consult Dall's '*Alaska and its Resources*,' Petroff's '*Alaska*,' Gibbs' '*Notes on the Tinneh or Chipewyan Indians of British and Russian America*,' in Smithsonian Report, 1866, and Dawson's '*Yukon Report*,' in Geol. Survey, 1887-8, 203B.

west and south of us, between (here) and the coast, have a great difference in pronunciation, but they all understand each other, and it is undoubtedly the same language that is spoken all over the country between the mouth of the McKenzie and Behring Straits (except the Esquimaux along the northern coast) they call themselves, as do all other tribes, the *People* 'Kootchin' at Peels River the word is pronounced plain, here the *n* is scarcely articulated, and frequently only *Kootchi*. To the west and south west there are the Tchuktchis and the Tchukatchis, these last our Indians call the Tchukootchins (People of the water), it is the same word, if I remember rightly *Tchuktches* is the name given the inhabitants on the opposite side of Behring Strait, there is a band to the west of the same name, and there is little doubt but they are originally the same people.

The 'Gens du fou' speak differently, their language is a mixture of the Loucheux and Nawhawny, and is nearly the same as is spoken towards Frances Lake, a number of the Gens du fou, those farthest north understand the Loucheux well.

The dress worn by all I have seen is nearly the same, the only difference being in the fashion of wearing the hair and some of their ornaments.¹ They wear a capot or shirt of dressed deer skin, pointed in front and behind something like the tails of a dress coat, a broad band of beads is generally worn across the breast and shoulders, and behind a fringe of fancy beads, and small leathern tassels wound round with porcupine quills and strung with the stones of a white berry common in the country. The 'Neather garment' is simply a pair of deer skin pantaloons, secured by a narrow band around the lower part of the body; a strip of beads about two inches broad is worn on each side of the *trousers* from the hip to the ankle, bands of beads are fastened around the legs and ankles. The shoes and pantaloons are of the same piece, the stripes of beads on the legs are in alternate squares of red and white, but frequently only single fringes are worn, and those who are poor use only porcupine quills. Beads are worn in every shape on the breast and shoulders and sometimes immense rolls of all

1. On the dress and ornaments of the Kutchin, the method of dressing the hair, clothing of men and women, the arms, lodges, &c., compare Richardson, I, ch. xii; Strachan Jones' 'Kutchin tribes,' in Gibbs' Notes, previously cited; Dall's, and Petroff's, Alaska; and Kirby's 'Journey to the Youcon,' in Smithsonian Report, 1864.



Winter lodges of the Kootchin.

colors for necklaces. The head bands are made of small and various colored beads and small shells (the same as those you sent me), those shells are always used in the nose, and hung to the ears. The hair is tied behind and wound around with shells. Their mittens which they always carry are ornamental with them, they even have them fixed to some of their guns. Each man has hanging to his neck two small bags containing black lead and red earth for painting themselves (their faces), each one paints according to his own fancy, most commonly the upper parts of the cheeks and around the eyes are black, a black strip along the top of the nose, the forehead is covered with narrow red stripes, and the chin with strips of red and black. Eagle and hawk feathers are stuck in the hair behind, and removed only when they go to sleep or to be used when dancing. The 'Gens du fou' and lower Indians mix their hair with red earth, greese and the down of geese and ducks, by continuing this from their infancy the *tail* attains an immense length, often as large as the head, and becomes so heavy loaded as it is with beads and shells and accumulated dirt, that the neck is bent forward, and gives the Indians the appearance of stooping. Their arms are the common bow and arrows and the Russian knife and dagger and spear. Their knives are made of iron, but the fancy handles and fluted blades are of more value to them than the temper of the knife; they complain of ours being too hard and the difficulty of sharpening them. The quiver is worn on the left side by a string around the shoulders, until lately very few had guns, but they are now in great demand, of the 90 men who compose the band, only 12 of them have guns, but many more carry powder horns, which they procure from other Indians, and all carry ammunition when they can get it, and have a share of what is killed by the owners of the guns. The winter dress is a rabbit skin capot and deer skin trousers dressed with the hair on, the hair is always worn next the skin. Their dress clothes are always carried with them and put on at night whether here or in their own lodge. The women dress nearly the same as the men, only the capot is a *leetle* longer, and with no point in front, they have fewer ornaments and the hair is seldom tied. Each family is provided with a deer skin lodge, the hair is always kept on for warmth in winter, the lodge is seldom used in summer. In winter they

encamp in a thicket of pines, the ground is cleared and the lodge put up on willow poles which they generally carry with them on their sledges. Snow is then packed half way up, the inside is lined with small pine brush, and the small hole used for a door closed with a double deer skin. Although they have small fires it is as warm as most houses. Their stock of provisions, consisting generally of dried fish, is kept outside in a 'cache' made of branches and snow, open above on which are placed their sleighs. They are better dressed and in general live much more comfortably than the Indians of the McKenzie. The women do all the drudgery in winter, collect fire wood, haul the sleighs along with the dogs, bring snow for water, etc., but the men always cook, and the women are not allowed to eat until their husbands are satisfied. They treat their wives generally with kindness, but are very jealous of them. The principal men of the nation have two and three wives each, one old leader here has five, while others who have few beads (and beads are their riches) to decorate the women, remain bachelors, but a good fighter though a poor man can always have a wife. The women do little in summer except drying the fish or meat, the men alone paddle the canoes, the women go as passengers, I have even seen the men carry them from the canoes to where the ground was dry for fear of having their feet wet. The men are about the middle stature, slim but well formed, regular features and high forehead, and much lighter complexions than any Indians I have seen. The women are *ditto*, there is one here at this present, one of the chief's wives, as handsome a woman as one might see in the longest day of the year, were it not for her hideous garment and tattooed face, the chins of the women are always tattooed, and black is the color they mostly use to paint their faces. The young children are not bandaged in moss bags or Indian cradles common with other tribes, but placed in a kind of a seat made of birch bark, with back and sides resembling an arm chair, and in front like a Spanish saddle. In this the women carry their children by a strap around the shoulders in the usual manner. The child's legs hang on each side, encased in boots, the feet are confined to prevent them from growing, they have all short and unshapely feet, but this with them is considered handsome.



Dance of the Kootcha-Kootchin.

Dancing and singing are their favourite amusements, and they excel any other Indians that I have seen in both, leaping, wrestling and other feats of strength and agility are often practised, particularly when different bands meet who are on friendly terms. They are the most inveterate talkers, every one that arrives makes a speech which we must listen to, before he moves from the door, explaining where he has been, how hard he has worked to get so and so for us, that he ought to be well paid, the news from the other band, etc. etc., and they will not be interrupted until it is finished, though it should be the coldest day in winter. They have like all other tribes their good and evil spirits, which they seldom trouble except in cases of sickness or war, the evil spirit is the one generally invoked, they being most afraid of it; according to their account the spirit works mighty wonders betimes. They have their 'medicine men' or conjurors who only, it is believed, can communicate with the 'evil one,' and foretell death. These fellows are looked upon with respect and awe by the others; should any one have a quarrel or even dispute with another band, and this one afterwards to die, it is believed by all that his death is caused by the 'medicine' of the other band; a strong party is mustered and sets out to have revenge, if the death of their friend is not immediately paid for—from twenty to fifty and sixty skins or beads is the payment for a death, varying according to the rank of the deceased. The lower band of this nation was at war as I have already mentioned with the 'Teytse-Kootchin' and five of the latter were killed, but not in open battle, a regular 'stand up fight' seldom occurs, the usual mode is by surprise at night, or waiting in the vicinity of their enemies' encampment and killing any stragglers that may come within their reach. The cause of the quarrel last summer was the sudden death of a woman, wife to one of our principal men. This occurred soon after she had been here, and it was at first believed that we were the cause of her death, but this was overruled and the blame attached to the lower band who had some disagreement with her husband. Upwards of thirty warriors started off in canoes, on their way down they had put ashore to sleep, when five of the unsuspecting 'Teytse-Kootchin' arrived. One of them was far behind the others, and the first four being allowed on shore were instantly dispatched with their daggers and stripped of

their beads and ornaments. The fifth man came up but not seeing his comrades suspected that all was not right and refused to go on shore, he landed on a batture and talked with them across the channel. Two of our Indians carried their canoes unperceived through the willows and embarked around a point farther up and descended the river as if belonging to a different party. They paddled for the batture on which the stranger stood, they told him they were going down stream and would be glad of their [his?] company, that it was much pleasanter for two or three to be together and sing as they went along. He waited until they came up and was about to step into his canoe, when the *Little Chief* tripped him by the foot, he fell into the water and the other Indian stabbed him before he had time to get up. The warriors (murderers) proceeded on their journey intending to have still further revenge, but they returned here without killing more, there were too many of the other Indians together for them to attack successfully. Two years since four of the lower Indians were killed a little above where we are, they arrived one night at the lodge of an old man while he was sick and encamped alone with his two sons, one of them a boy. The Indians entered the lodge professing themselves friends, but after a while the sons noticing that they did not sleep and suspicious of their intentions, left the lodge intimating to their father that they were going to visit the moon snares, and took with them their bows and arrows. They remained outside until they knew by the conversation that their father's life was menaced, and knowing where the strangers sat, shot their arrows through the tent and killed two, the others were dispatched also by arrows while endeavouring to make their escape. This is spoken of as being a remarkably brave action. But they seldom tell of their reverses; they must have been less successful than some of their foes, twenty years ago, they say, they were a large nation, but being always at war more than half of their people have been killed. By all account they are a most treacherous people, and the taking of a man's life is no more regarded by them than that of a moose. With us they have behaved themselves well, particularly as they had never seen white people, there is only one exception. One of them here in the fall wished to enter Mr. Hope's house while his wife was alone, she shut the door in his face, and he again tried to force it open, and to



Saveeah, chief of the Kootcha-Kootchin.

effect this drew his knife on the woman, as he said afterwards, only to frighten her, and I believe he meant nothing more, still it was requested that he should have a particular *blowing up* which he got, and with orders never to enter the house again. The poor fellow was frightened almost to death about it, he has not been here since. Except that one instance I can say nothing against them. I have never known any of them to steal, although to be sure they have had few opportunities, as what we have got is strictly looked after, still they are not to be trusted. On account of being so often at war, and living in constant dread of enemies, they generally keep in large parties. They spend the summer principally in fishing, and make a supply of dried trout and white fish for winter. The small rivers and narrow parts of the lakes are barred with stakes, and large willow baskets placed to entrap the fish, sometimes immense hauls are made; they never use nets and know nothing of them. In fall and winter they live on rabbits and moose, the moose are generally snared, very few of the Indians can kill them in any other way, but the animals are so plentiful that they are frequently shot, the young chief has been employed here as Fort Hunter and been very successful, but he is considered the best moose hunter in the whole band. Towards spring most of them repair to the Carribeux lands to make a supply of dried meat, but more particularly to procure skins for clothing, etc. Comparatively little of their time is devoted to hunting furs, they talk as if they could get what they wanted at any time, immediately after the disruption of the ice is the season they kill most beaver.

I suppose I have said enough about these Barbarians. A few sketches by way of a change and some specimens of the language may be interesting to you.

The above *Gentleman 'Saveeah'*,¹ the principal chief of the Kootcha-Kootchin was present while I was sketching the others, and remarked that he did not see himself amongst them. I offered to take his likeness to send to the Great White Chief, and he has been sitting for the last half hour with his *best face* on. He is mightily pleased with his own appearance on paper,

1. This may be the same chief mentioned by Schwatka as *Senati*.

although I have made a complete bough¹ of it, except the mouth it is not unlike.

I may here remark that all the chiefs hereabouts are young men, and when they become old they are not much regarded as leaders, none are considered a chief until they have 200 skins worth of beads. This Indian never saw whites before we arrived. He has given us more fur and more meat than any other, was our Fort Hunter this spring, has great influence with his band, and is the person for whom the Red Coat is intended, after our arrival from Lapiers House.

ENGLISH.	KUTCHIN. ²
NUMBERS.	
1.....	Tech-lagga.
2.....	Nawk-hey.
3.....	Thee-eka.
4.....	Tawwnna.
5.....	Tla-kon-iley.
6.....	Neech-kee-et-hog.
7.....	Atait-sa-newk-he.
8.....	Neech-kee-etawwnna.
9.....	Muntcha-necko.
10.....	Tech-lagga-chow-et-hee-en.
11.....	Tech-lagga-meekee-tagga.
12.....	Nawk-heiy-meekee-tagga.
13.....	Thee-eka-meekee-tagga.
14.....	Tawwnna-meekee-tagga.
&c.....	
20.....	Nawk-how chowetheein.
21.....	Nawk-how chowetheein unsa techlagga.
22.....	Nawk-how chowetheein unsa nawkheiy.
&c.....	
30.....	Thee-eka chowit heein.
40.....	Tawwnna-ha chowit heein.
50.....	Atlakinniley chowit heein.
60.....	Neech-kee-et-hog chowit heein.
70.....	Ataitsa chowit heein.
80.....	Neech-kee-etwanna chowit heein.
90.....	Muntcha-necko chowit heein.
100.....	Tech-lagga chowetheein chowetheein.
200.....	Nawkaggo chowetheein chowetheein.
300.....	Thee-eka chowetheein chowetheein.
&c., &c.	

1. A complete 'botch,' presumably.

2. Compare Richardson, I, 399-400, II, 382-85 (reproduced in Introduction to this Journal); Dall's 'Alaska,' Latham's 'Ethnology of the British Colonies,' pp. 22417; Hardesty's 'Terms of Relationship of the Kutchin,' in Morgan's 'Systems of Consanguinity and Affinity,' pp. 293-382; Kennicott's Kutch-a-Kutchin vocabulary, in Whympers 'Travel and Adventure in Alaska,' pp. 322-28; and Isbester's vocabulary, in Philo. Soc. of London Proc., Vol. 4, pp. 184-5.



Kootcha-Kootchin.

ENGLISH.

KUTCHIN.

Animals.

Bear.....	So
Grizzley.....	See-e
Beaver.....	Se
Red fox.....	Naw-kath
Cross fox.....	Naw-kath-so.
Black fox.....	Naw-kath-berhata-neel-ir-zey.
White fox.....	Etchee-athwee.
Lynx.....	Nee-cetchi.
Marten.....	Tsoo-ko.
Mink.....	Tcheeth-ey.
Otter.....	Tsue.
Rat.....	Tzin.
Wolf.....	Zo.
Rabbit.....	Ke.
Wolverine.....	Lech-cthue.
Seal.....	Nawt-chuk.
Moose.....	Teen-juke.
Reindeer.....	Bet-zey.
Goose.....	Chre.
Swan.....	Taw-arr-zyne.
Crane.....	Cheaw.
Duck.....	Tet-sun.
Partridge.....	Ach-tayl.
Fish or salmon.....	Tleugh-ko.
White fish.....	Telugh-ko tawk-heiy.
Pike.....	Alle-teein.
Blue fish.....	Rsee-tcha.
Loche.....	Cho-tleugh.

Goods.

Awl.....	Tha.
Axe.....	Faw-ey.
Beads.....	Nawkye.
Belt.....	Tho.
Blanket.....	Tsetta.
Tobacco box.....	Coltow-teeah.
Buttons.....	Tey-ky-theet-le.
Cap.....	Tsa kol-u.
Bonnet.....	Tsa-till-ek-ha.
Capot.....	Eek.
Duffle capot.....	Chy-eek.
Chisel.....	Soo-it-se.
Comb.....	Cheer-zug.
Dagger.....	Neel-ey-cho.
File.....	Kook-ee.
Gartering.....	Lakath-at-hye.
Looking glass.....	Mootche-se-a.
Gun.....	Te-egga.
Gun flint.....	Bech-tsee.
Gun.....	Koggo-te.
Gunpowder.....	Tegga-kon.
Powder horn.....	Awkee-cetche.
Kettel.....	Thee-aw.
Knife.....	R-see.
Ring.....	Elawt-thick.
Shot.....	Tegga-awtsil.
Shirt.....	Azue-ee-ek.
Ball.....	Tegga-awtcho.
Fire-steel.....	Tlga.
Cloth.....	Atheet lee.
Thread.....	Atheetle-cetchee.
Tobacco.....	Se-eytee-it.
Trowsers.....	Tley-eek.
Vermilion.....	Tingee-ta-tseigh.

ENGLISH.	KUTCHIN.
<i>Some Common Words.</i>	
Tree.....	Tetch-hau.
Willow.....	Kyee.
Grass.....	Tlo.
Ground.....	Nun.
Water.....	Tchu.
River.....	Han.
Lake.....	Van.
Rain.....	Ach-tsin.
Warm.....	Konnee-stha.
Cold.....	Konnee-eka.
Hungry.....	Seze-quee-tseek.
Fatigued....	Keea-seth-clth-chrey.
Sick.....	Ith-ill-seyh.
Mountain.....	Tha.
Valley.....	Chra-twnn-e.
Sun.....	R-sey-e.
Stars.....	Thun.
Rock.....	Tchee.
House or fort.....	Isseh.
Lodge.....	Nee-bee-a.
Bow.....	Alt-heigh.
Arrow.....	Kee-e.
Canoe.....	Tree.
Good.....	Neir-zee.
Bad.....	Bets-de-te.
Day.....	Tzeen.
Night.....	Tatha.
Sleep.....	Nogh-tchee.
Rest.....	Tuggath-illa-ch.
Sit.....	Tcheeth-oo-itche.
Walk.....	A-whott-il.
Run.....	Spa-tocha.
Shoot.....	Awt-il-ke.
Kill.....	Boshug-on-iocha.
Man.....	Tin-gee.
Woman.....	Trya-jo.
Boy.....	Tse-a.
Girl.....	Meet-chet ey.
Dog.....	Tlyne.
Sleigh.....	Latchan-bultl.

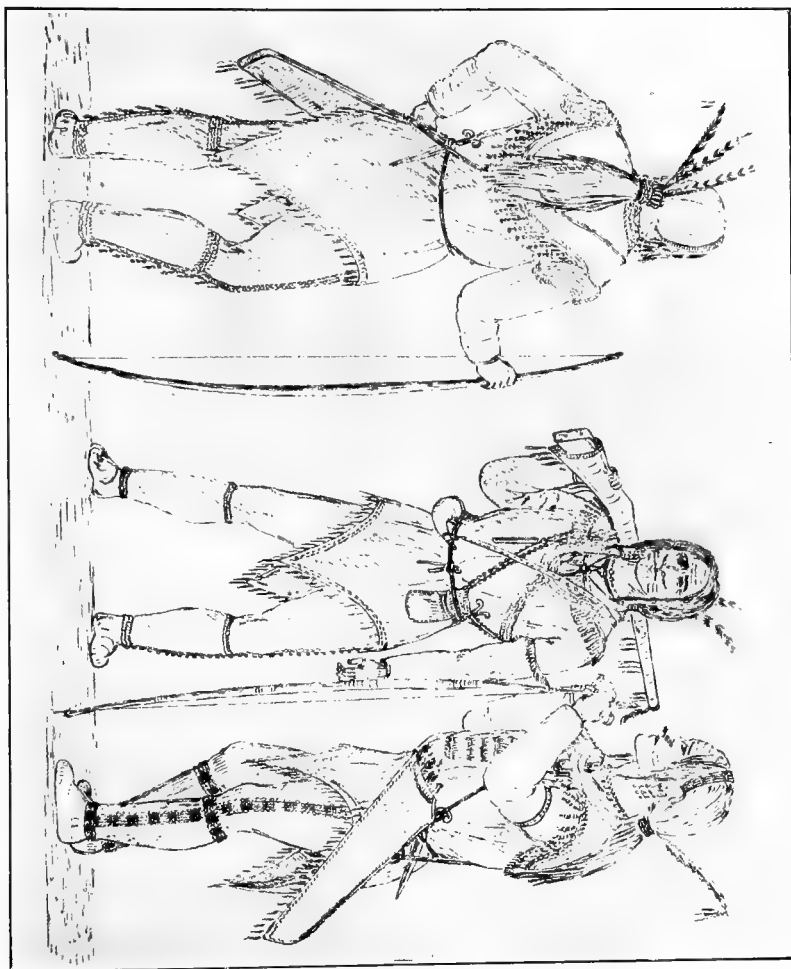
I have just finished copying in my meteorological journal, and find that I have only a few more leaves to fill up, which I am partly glad at, as there are so many different jobs going on now, that require my presence, that I am scarcely allowed to sit down ten minutes at a time. I expected by this time to have seen most of the Indians from the Carribeux Mountains, but none have yet arrived, a few who were here about a month since for ammunition, informed us that the reason of their people not coming in as they promised on the last snow was, that the Reindeer were very scarce, and that they had made no dried meat, but would likely be here by open water, some of them had a good many furs which they would keep until our return from Lapiers House.

None of the lower band were here since April, they are passing the spring with the 'Tannin-Kootchin' on the other

side of the mountains to the west of this, and I have heard, have disposed of many of their furs to that band for beads. This is only what I expected, it is not likely that the Indians will keep their furs so long (until our arrival in July) when they can trade elsewhere at any time, and get what goods they require which they cannot procure from us. When I wrote to you in November, I had then no other idea, than that the Russians would only make an annual visit to this river, and as their stay would be limited, should they not reach the place, I fully expected to have prevented the Indians here from meeting them, and it was my policy, and is still, however repugnant to my feelings to encourage [rather?] than otherwise the enmity between the Kootcha-Kootchin and lower bands, but now that the Russians have commenced to build farther down the river, and no doubt intend to support a regular establishment there, and trading so much lower than us, the future prospects of the trade of this place are not so encouraging as they were, particularly when I consider of our forthcoming outfit. I received the [outfit?] by the return of my men from Lapiers House on January 5th and must say, that I was greatly mortified to find so limited a supply of the articles most needed (beads and guns) being sent; I notice that there are only a quarter of a box of beads (16 lbs.). I would have been better satisfied had none at all been sent, as then I could have settled with the Indians alike, without displeasing one more than another. I am now at a loss what to do. There is one man of the upper band who has between 90 and 100 skins in martens and beaver which he is keeping *all* for beads on our return. *Two men* would take more than what are sent, and how am I to settle with 300? I know you could not be aware at the time the outfit was made up of what was required here, and moreover that it requires a certain time too, if you have to depend on goods coming from England, perhaps three years,¹ before an extra supply of goods for this

1. 'At the time of the establishment of Forts Yukon and Selkirk,' says Dawson, 'and for many years afterwards, the "returns" from these furthest stations reached the market only after seven years, the course of trade being as follows: *Goods*.—1st year, reach York Factory; 2nd year, Norway House; 3rd year, Peel river, and were hauled during the winter across the mountains to La Pierre's House; 4th year, reach Fort Yukon. *Returns*.—5th year, reach La Pierre's House and are hauled across to Peel river; 6th year, reach depot at Fort Simpson; 7th year, reach market.'

addition to your district is received at Fort Simpson, you might not have had the means to send more, still I did expect at least two boxes of beads and two of guns. Now I have got into a scrape, or at least will get into one on my return; the Indians all expect a larger outfit, I have promised it to them and what excuse can I give? You may ask why did I promise a larger outfit? I answer that I had no other means of preventing them from disposing of their furs to the lower bands, and surely I had a right to expect a larger supply of goods than is sent. But even already in spite of all my endeavours a quantity of furs are traded, and it is perhaps just as well, because if they were brought here they would be again taken away. Without *beads* and plenty of them you can do little or no good here. The indent I sent you in winter might astonish you with respect to that article and also guns. I then mentioned four boxes of beads, because I thought it unlikely that you could send more, that quantity with a proportionate supply of guns, ammunition and tobacco, and other articles most needed would perhaps suffice, but unless fancy beads are also sent a great part of the trade will go to our opponents. There is not an Indian here, and very few even at Peels River but wear fancy beads, that is blue and red of various sizes, they cost the Indians nearly double what they pay for the common white beads, all these fancy beads are traded from the Russians, or by the Peels River Indians from the 'Gens-du-fou' and natives of this quarter. To trade here successfully, there ought to be for one year's outfit four boxes of common white beads, one box of red (same size) and one box of fancy (blue of various sizes and colors and necklaces), this quantity it will perhaps be difficult to procure at York Factory, but there is a great quantity sent to Red River, there every common woman wears them, the Company may perhaps receive one shilling for each necklace, if they were sent here they would be worth at least 30 shillings each. For the small shells, a few of which you sent me at Peels River, they are most valuable, every Indian wears them, as nose and ear ornaments, for hair bands, etc., and a small quantity might be sent annually from the Columbia without a great deal of trouble. Except cloth and capots which can only be disposed of when there is nothing else, cloth even not then, everything else can be traded here, some brass arm bands and neck orna-



Kootenai hunters.

ments, medals and larger sized ear rings could be disposed of most advantageously, also some fancy handled knives. I would most urgently advise, if you wish this settlement to prosper, that an extensive and suitable outfit be sent, even though some of the older established places should be more scantily supplied for a season. But even though we have a good outfit, I have my doubts of now being as successful as I expected. We cannot begin to compete with the Russians as to prices, nor can I tell what the result will be after the full force of the opposition will be felt.

I should like much to know what are the H. B. Company's intentions respecting this country, whether it will be leased from the Russians A. T. Co., or if we are to continue here regardless of them. In the latter case we shall in all likelihood get into some trouble, but if we have goods sufficient for the demands of the Indians, I doubt not but we might fight our way for a few years, unless the Russians build nearer to us than where they are now; as for their coming here in summer, I have great hopes, that the distance and difficulty of navigating the river will be sufficient prevention. But should the Company (the H. B. Co.) intend to extend the trade along the river, I will submit to you my humble ideas respecting it: The Youcon from the forks of the Lewis and Pelly to the Polar Sea may perhaps be, from its windings, 1100 or 1200 miles in length,¹ it drains an extensive and populous territory, abounding in beaver, martens, and all the common fur bearing animals. Moose are plentiful, and I think there would be no danger, but a sufficiency of provisions could be procured and were it properly established would compose a district in my opinion equal to the McKenzie. But there are several serious inconveniences which ought to be taken into consideration; the first and greatest is our proximity to the Russians, and being so far into their territories, and the probability even if we had full permission to trade here, that the opposition they would offer from inland establishments and on the coast would affect us: and supposing that we had four or five Forts along the river, and the country is sufficiently extensive and populous to support that number, another great

1. The length of the Yukon, from the confluence of the Pelly and Lewes, to the sea, is 1,360 miles; its total length, from the headwaters of the Nisutlin, is 1,765 miles.

drawback would be the difficulty of having our goods and returns transported to and from the McKenzie; I wrote you last spring regarding the present winter route between Peels River and Lapiers House, of the great scarcity of wood amongst the mountains, 'enough may be found for a year or two more, but unless another route is found there will be much difficulty in having our outfit brought accross. By following some of the small rivers more to the south, no doubt wood for encamping in winter can be found but there it may lengthen the journey. Rat River rises from a lake in a pass in the mountains to the north of Peels River Fort, from the same lake also flows another river also named Rat River which joins Peels River near to the McKenzie, both these rivers as far as I have seen appear navigable, if a water communication could be formed then it would be most advantageous in every respect. I had once great hopes that some communication by way of lakes might be discovered between Gravel River and some tributary of the Youcon, but from what the Indians say, I believe it to be impracticable, and as to being supplied from the Pelly, via the west branch it is entirely out of the question, at least as far down the Youcon as where we are.¹

I have been interrupted in writing the above by the arrival of six of the 'Gens du fou' from their lands up this river: I will give you their news some of which is rather important. A very large party of these Indians started to come here after the disruption of the ice, with a quantity of furs and dried meat, they had reached so far as the ramparts where the river was blocked except one narrow channel, they entered the channel but found it closed some distance farther down, the current, then very strong, carried them too far, several of their canoes were swamped, one man drowned, and all of the others except the six men just arrived lost their furs and provisions, being forced to throw them out to lighten their canoes and save themselves. Those here have only saved a few deer skins and lynx

1. Murray's Rat river first mentioned is now Bell river. Bell river and Rat river rise in the same mountains, about $136^{\circ} 10'$. See previous note on Gravel river. 'West branch' refers to the upper waters of the Liard; it appears as 'N. west branch' on the map accompanying Richardson's 'Arctic Searching Expedition.' As elsewhere noted, the route by way of the Liard and Pelly was abandoned in favour of the Porcupine, after Campbell's journey of 1850.

and martens, the poor fellows are in very low spirits about it. I am sorry for them, and for the provisions, but I consider it fortunate for us that the furs were not brought, at least the quantity they say they had, they were arriving here for guns, and they would have got none nor very little else. These Indians have been trading some furs with the Russians last winter, going there principally for a supply of snuff and tobaccó. These Indians are very fond of snuff and generally carry it with them. The distance from this to one of the Russian Forts is not great, and ten of the Russians with a party of Indians started to come here in winter to see who and where we were, but returned on account of the severity of the cold. They have discovered another and nearer route to the Youcon by descending a river which joins this in the Gens du fou country (above this) and they are coming here with a large party of these Indians this summer. The Indians have been telling us all about their Fort, their trade and their goods, etc., etc. Amongst other things which they were bringing accross the new portage was a *cannon* one of which they always carry on each boat in 'these parts.' If all this be true we shall yet see the Russians. I had hopes that from below they would scarcely reach us, but since they descend the river it is most probable they will be here. These Indians also tell us that they had heard from the middle band, and these again from the upper band (there are four bands in that tribe) that some of *our people* were coming here this summer in a canoe, which canoe, a large one, was being built at the Pelly, and three Indians engaged to accompany *our people* hither; this of course is Mr. Campbell, but I can scarcely credit the report as Mr. C. can only be arriving at the Pelly about this time with the boats built on the Lewis during winter or spring, and if his place is like this, he will have too much to attend to in building his Fort¹ and managing the Indian trade etc., to spend so much of his time on a voyage of discovery. He may descend the river easily enough, but if reports are to be believed, the flowers will again have faded ere he again view the banks of the Pelly.¹ Well, the

1. The beginning of June, 1848, when this was written, Campbell was just about starting down the river from Pelly Banks, to the forks of the Pelly and Lewes, where he built Fort Selkirk. It was not until two years later, however, that he and Murray met at Fort Yukon.

Russians are to be here, and with a *cannon*, and I suppose with the intention of blowing us all to ——— ‘they might and then again they mightn’t.’ If they come by this new route and descend the river they will likely be here while I am absent. I wish to God I had an experienced assistant either to leave here or go with the returns to Lapiers House, as it is, my presence to manage matters there, for this season, is indispensable, and we shall be off on the trip as soon as it is possible to ascend Porcupine river, it is not yet (May 26th) broken up, except near the mouth.

A party of Indians from the Carribeux Mountains have just arrived, smoke is seen ascending from the woods on the opposite side of the river, which we suppose to be from the encampment of the lower band who are expected daily. I have no time to write more now, this may be finished before I leave, or while on the voyage.

June 16th.

I am now on the voyage to Lapiers House, encamped amongst the rocks in the Ramparts of Porcupine River. We left on the 5th as soon as was practicable, the river overflowing its banks, and the current so very strong, that for a few days at first I had great difficulty in mounting it, but it is now subsiding rapidly, and much lower than when we descended last year, and several rather dangerous looking rapids appear, which were not then noticed. We have, so far, fine weather and abundance of mosquitos.

I left Mr. A. McKenzie and four men at the Youcon, and gave instructions for the summer's work, and there is plenty to keep them all employed. Our spring operations are pretty well forwarded considering the great distance all the wood had to be brought. *Two* new boats are built each 30 feet 8 in. keel and 9 feet beam. The cutting the timber for their boats and bringing the same in sleds from two to four miles distance was a tedious affair, but it is now over and with that built last spring, there are now *three good* boats, as many, I suppose, as will be required for some time. The two left are placed ‘en cache’ and well covered with small trees and brush to shelter them from the sun and weather. The pickets for the Fort are all cut and squared, and collected into piles close to the river,

they also had to be got on the upper islands, as no trees large enough could be found more convenient, they are to be rafted down stream on my return, they are the strongest pickets in the country and when put up with bastions in proportion will have something the appearance of a *Fort*.

I intended to have given you some account of how the winter and spring was spent, but have now little room, and less time. We have subsisted all spring until the day of our departure upon fresh moose meat, and there is left, well packed with snow in the cellar fresh provisions more than will support the people left until our return. Upwards of thirty moose large and small (but all lean) were killed during winter and spring, by the hunters brought with me and one or two of the natives, since winter very few Indians came near us, and all the dried meat received is scarcely worth nothing. The Indians that did arrive say that the reindeer are very scarce this season, and also that their friends would not come near us, knowing that we had little to give them. Had we been obliged to depend on the Indians for provisions in spring we would have not been so well off. With one thing and another I have been able to make the two ends meet, and saved the greater part of the pemmican brought with me. I left Lapiers House a year ago with 22 bags of pemmican, only 4 of which were consumed, 5 are brought with us for the present voyage, and of course 13 remain in store, there are also a good stock of dried fish and some very poor dried meat, with fully 300 lbs. of greese—this, with the fresh meat on hand, I hope you will allow to be a tolerable commencement in the way of provisions, and I hope satisfactory to you, it is always pleasing to myself as my own predictions on leaving Fort Simpson have been verified. The establishing the Youcon has, I believe, been attended with little expense comparing it to the west branch, and, were it not for the Russians I might promise would be no encumbrance on your district respecting provisions, if we had plenty of goods. You have sent me some pemmican, the principal part of which I intend taking with me this season, as I cannot depend much on the exertions of the Indians, they will be so dissatisfied that so few goods are brought, and I do believe the majority of them will not come near us after it is known, if an adequate outfit is sent, I will

take upon me to say, that no more pemmican need be forwarded to the Youcon, but until such outfit is received the more pemmican you send the better, and that may not suffice for the Indians are sure to forsake us and trade with our opponents, or with the intervening bands of Indians with whom they can have intercourse at all times, and then our trade both as regards furs and provisions will be done for.

A few men of the 'Hawkootchin' and other Indians arrived before I left and by all accounts I will not be able to trade *one half* of the furs already collected by the Indians, to be brought in on my return. A quantity of furs was left in store for beads and guns which I would have brought with me had I been certain of being able to pay for them on my return, but of that I was very uncertain, and therefore considered it prudent to leave them until they are traded. I know myself of upwards of twenty men who have furs for a gun *each* on my return. I could dispose of any quantity of guns this summer, and I do hope you will send as many as possible, the Indians all prefer our guns to those of the Russians. Guns and beads, beads and guns is all the cry in *our* country. Please to excuse me for repeating this so often, but I cannot be too importunate, the *rise* or *fall* of our establishment on the Youcon depends principally on the supply of these articles.

The returns of the first year of the Youcon, are twelve packs of furs, and a half ditto of deer skins, also a small box of castors, in all valued at £1557.15.3 sterling. This is not a large sum, but as much as I could collect with the goods I had. I will not say what it might have been, but if you give me an adequate outfit, I do believe that in a few years, we would equal Fort Simpson, that is if (and that *if* is an ugly word) we have full permission of the country. Since seeing the 'Hawkootchin' previous to my departure my ideas respecting clothing, are materially altered. These people, but *these* only seem very fond of our capots, they have promised to come in the fall for some of them, it would be well to send a respectable supply of 3½ and 4 ell capots, but few or none of a smaller size, white is the colour **always** demanded, also blankets, powder horns, files, axes, etc., etc., and once more allow me to request you to send plenty of ammunition and tobacco.

I had some more conversation with the Indians that arrived before we left, respecting the Russians, from what they all say it is my firm belief that we shall see the Russians this summer, they have been making every preparation on the *portage* to descend the river. The more I think on this subject I am at the greater loss how I shall act, but I hope to receive full instructions from you. They may order us to leave the country, perhaps try to force us from it should we persist in remaining, and I should be very sorry to involve the Company in any difficulty with our Russian neighbours. But I only received orders to establish a post in the Youcon, which is done, nothing was said concerning the Russians trade or territory, and it is my private determination to keep good our footing until decisive instructions are received.

I have now said quite enough, another page yet remains for a few lines on my arrival at L. House. I shall therefore take a two hours *nap* and proceed on in the voyage.

Lapiers House.

Arrived here yesterday (June 23rd) with the furs, etc., all safe. The upper parts of the river is much lower than I expected, and unless it rises, I begin to fear that we shall have much difficulty in returning to the Youcon. The men from Peels River reached this at the same time as ourselves, and I find myself too much occupied to add anything more to this, *the longest yarn I ever spun*, and I must end abruptly.

I have now fulfilled my last promise to you, I have given you as full and particular account of the country etc etc. as is necessary, and am sorry that I had not leisure to write it more carefully.

I am, Dear Sir,

Most respectfully and sincerely yours,

A. H. MURRY.¹

MURDO MCPHERSON, Esq.,²

etc., etc., etc.,

(Fort Simpson.

1. Alexander Hunter Murray.

2. Murdo, or Murdoch, McPherson, was at this time Chief Factor at Fort Simpson. Sir John Richardson found him there in 1848, and was indebted to him for much information as to the tribes, fauna and flora of the Mackenzie basin. He had already spent twenty years in the Mackenzie district, having reached the rank of Chief Factor in 1847.

NOTES TO METEOROLOGICAL JOURNAL.

I need say very little more about the weather than what is contained in the foregoing Journal. The temperature of the atmosphere was regularly noted every day during the past eleven months, during summer at 6 o'clock a.m. and 6 p.m. and in winter as soon or as late as I was able to see, in the month of July at 1 p.m., but at all other times at noon or thereabouts.

It will be seen that I have in many places mentioned the day as being *calm* though the wind is noted as coming from a certain direction, in such case I was guided by the course of the smoke arising from the houses or by the clouds, although the wind could not be felt,

Parhelia, Solar and Lunar Halos and Coronae are very common in this part of the country, but I think not more so than at Peels River.

A remarkable phenomenon was noticed here at night on the 26th of July, viz., the reflection of the setting sun, in two different places in the *opposite* horizon about the same distance apart as the bases of a rainbow. The one to the west remained after the other disappeared, and kept rising as the sun sank, at one time it was nearly as bright as the real luminary. The evening was warm and sultry, and the sun reflected from dense copper coloured clouds.

A little past 6 p.m. on January 14th the moon represented the following appearance [see illustration] being reflected four times, the large circle extended one half of the heavens, the night was clear, no clouds to be seen except under the moon.

It will be seen that we have had some *very* cold weather; here the winter is much colder than at Peels River, at least while I was there, the thermometer was never below 53, here it was twice, as low as 58. There is less snow, and more clear and calm weather during winter here than at Peels River.

The river here, set fast on October 30th and broke up on May 14th. Last season, Peels River set fast in October 8th and broke up on May 20th.



A lunar phenomenon.

I took no note of the Àurora Borealis except when it was remarkably bright or beautiful, it is nearly as common here as the 'stars of the firmament' being seen almost every clear night during winter, here as at Peels River it extends *generally* from North West to South East.

P.S. The weather during the month of June much resembled that of May, generally clear and dry, but several thunder storms and showers of rain.

TEMPERATURE OF THE ATMOSPHERE, &c., JULY,
1847.

DATE.	MORNING.		1 P. M.		EVENING.		Wind	Remarks.
	Above	Below	Above	Below	Above	Below		
July 1.	61	.....	67	.....	63	.....	W....	Thunder with vivid lightning; heavy showers of rain.
" 2.	63	.....	78	.....	62	.....	S. W.	Heavy peals of thunder, gusts of strong wind and showers of rain.
" 3.	57	.....	63	.....	59	.....	S.E..	Cloudy, showery; steady and moderate winds.
" 4.	59	.....	72	.....	61	.....	N.E..	Clear. Strong wind, calmed at 7 p. m.
" 5.	59	.....	71	.....	65	.....	N.E..	Clear. Blowy forenoon; calmed after mid-day.
" 6.	62	.....	75	.....	63	.....	E....	Clear. Moderate wind.
" 7.	59	...	82	.....	65	.....	S.E..	Rainy morning, calm noon; heavy squall and rain at 6 p. m.; afterwards calm.
" 8.	58	.....	77	.....	67	.....	S....	Rainy morning, light wind, passing showers.
" 9.	64	...	84	.....	74	.....	E....	Clear and almost calm.
" 10.	75	.....	89	.....	82	.....	S.E..	Clear and almost calm; 90 above zero at 2 p.m.
" 11.	76	.....	88	.....	77	.....	S.E..	Clear and cloudy; light wind.
" 12.	72	.....	67	.....	65	.....	E....	Cloudy; thunder in forenoon; blowy afternoon.
" 13.	54	.....	62	.....	60	.....	N.E..	Rainy morning; cloudy and strong wind; calmed at 7 p. m.
" 14.	50	...	65	.....	58	.....	N.E..	Cloudy; strong wind.
" 15.	52	.....	65	.....	64	.....	N....	Cloudy; moderate wind; beautiful rainbow at night.
" 16.	54	.....	68	.....	54	.....	S....	Cloudy; strong wind; calmed at 8 p. m.
" 17.	54	.....	65	.....	64	.....	S.W..	Cloudy; strong wind; showers of rain with heavy squalls.
" 18.	55	.....	72	.....	65	.....	W....	Cloudy; sunshine at intervals; strong and steady wind.
" 19.	58	.....	70	.....	69	.....	S.W..	Clear; blowing a gale all day.
" 20.	61	.....	72	.....	69	.....	S.W..	Passing showers; strong wind; sunshine and clouds.

TEMPERATURE OF THE ATMOSPHERE, &c., JULY,
1847.—*Concluded.*

DATE.	MORNING.		1 P. M.		EVENING.		Wind	Remarks.
	Above	Below	Above	Below	Above	Below		
July 21.	61	.....	73	.....	69	....	W....	Clear ; strong wind ; increased to a gale after 6 p. m.
" 22.	60	.....	73	.....	69	.....	S.W..	Clear ; wind moderated at noon ; calm evening.
" 23.	61	.....	75	.....	72	.....	S.W..	Cloudy ; forenoon calm ; in the evening moderate wind.
" 24.	57	.....	68	....	63	.....	S.W..	Rainy morning ; strong wind and cloudy.
" 25.	59	.....	81	.....	74	....	W....	Clear ; moderate wind ; river rising.
" 26.	66	.....	82	.....	75	.....	W....	Clear ; calm afternoon ; sultry evening ; strange reflection of the sun ; <i>see notes.</i>
" 27.	68	.....	82	.....	73	.....	S.W..	Clear ; almost calm.
" 28.	65	....	81	.....	74	.....	W....	Clear ; pleasant breeze.
" 29.	71	....	86	.....	79	.....	S.W..	Clear ; wind variable, but mostly calm ; river falling.
" 30.	73	.....	86	.....	80	.....	W....	Clear morning ; cloudy evening ; strong wind and rain during night.
" 31.	64	.....	82	.....	70	.....	W....	Cloudy ; moderate wind.

TEMPERATURE OF THE ATMOSPHERE, &c., AUGUST, 1847.

DATE.	MORNING.		NOON.		EVENING.		Wind	Remarks.
	Above	Below	Above	Below	Above	Below		
Aug. 1.	62	.....	76	.....	65	.....	N.E.	Clear; light and changeable wind.
" 2.	61	.....	79	.....	65	.....	E....	Clear, almost calm; cloudy evening.
" 3.	61	.....	80	.....	68	.....	S.W..	Cloudy and showers of rain; blowing at night.
" 4.	62	.....	79	.....	68	.....	S.W..	Clear; strong wind.
" 5.	58	.....	70	.....	58	.....	W....	Thunder in the morning; Showery forenoon; afterwards a gale of wind.
" 6.	54	.....	65	.....	62	.....	W....	Cloudy; strong wind; distant thunder; heavy rain at night.
" 7.	58	.....	79	.....	68	.....	E....	Clear; light wind.
" 8.	64	.....	86	.....	69	.....	S.E..	" "
" 9.	62	.....	86	.....	72	.....	S....	" calm.
" 10.	60	.....	81	.....	72	.....	E....	" "
" 11.	58	.....	85	.....	72	.....	S....	" "
" 12.	57	.....	66	.....	64	.....	E....	Overcast; little wind.
" 13.	57	.....	79	.....	66	.....	E.&S.	Variable and light wind; in the afternoon, thunder.
" 14.	57	.....	73	.....	66	.....	S.E..	Cloudy; in the afternoon, strong and squally wind.
" 15.	56	.....	68	.....	63	.....	S.E..	Cloudy; light wind; distant thunder; rainy evening.
" 16.	56	.....	72	.....	58	.....	S.W. to N.	Cloudy; light and changeable wind; thunder.
" 17.	56	.....	72	.....	58	.....	W....	Cloudy; strong wind; showery afternoon.
" 18.	55	.....	57	.....	56	.....	W....	Cloudy; a gale of wind; showery.
" 19.	50	.....	58	.....	57	.....	W....	Clear and cloudy; strong wind.
" 20.	52	.....	68	.....	60	.....	N.W.	Clear; little wind.
" 21.	52	.....	70	.....	63	.....	W....	" "
" 22.	53	.....	68	.....	60	.....	N.W.	Cloudy; "

TEMPERATURE OF THE ATMOSPHERE, &c., AUGUST,
1847.—*Concluded.*

DATE.	MORNING.		NOON.		EVENING.		Wind	Remarks.
	Above	Below	Above	Below	Above	Below		
Aug. 23.	53	.....	88	.....	63	.....	W....	Clear ; little wind.
" 24.	54	.....	72	.....	65	.....	W....	" "
" 25.	54	.....	72	.....	46	.....	N. and N.E.	Clear ; calm until noon ; afterwards strong wind
" 26.	33	.....	68	.....	54	.....	N....	Clear ; strong wind ; ice on the small lake this morning.
" 27.	42	.....	68	.....	55	.....	N.E..	Clear ; moderate wind.
" 28.	45	.....	66	.....	60	.....	W....	Hazy and clear ; light wind.
" 29.	44	.....	67	.....	58	.....	E....	Clear ; light wind.
" 30.	38	.....	50	.....	44	.....	N.E..	Light and steady wind ; cloudy evening.
" 31.	36	.....	51	.....	44	.....	.....	Light and steady wind ; clear.

TEMPERATURE OF THE ATMOSPHERE, &c., SEPTEMBER, 1847.

DATE.	MORNING.		NOON.		EVENING.		WIND	REMARKS.
	Above	Below	Above	Below	Above	Below		
Sept. 1.	36	.....	64	.....	54	...	W....	Cloudy; light wind.
" 2.	40	.....	69	.....	60	.....	S.W..	Clear, calm morning; blowy afternoon.
" 3.	36	.....	64	.....	60	.....	S.W..	Strong wind; cloudy evening.
" 4.	36	.....	64	.....	55	.....	S.W..	Clear; blowing strong.
" 5.	40	.....	64	.....	56	.....	S.W..	" light wind.
" 6.	42	.....	69	.....	56	.....	W....	" " rainy night.
" 7.	40	.....	65	.....	54	.....	S.W..	" " light rain in evening...
" 8.	37	.....	58	.....	50	.....	W....	Cloudy; " rainy night.
" 9.	36	.....	58	.....	46	.....	W....	Clear; moderate wind.
" 10.	30	...	55	.....	44	....	S.W..	" light wind; hoar frost this morning.
" 11.	33	.....	55	...	45	.....	W....	" light wind.
" 12.	29	.....	48	.....	39	.....	W....	" calm.
" 13.	25	.....	48	.....	37	....	W....	" "
" 14.	26	.....	49	.....	37	.....	S.W..	" "
" 15.	25	.....	49	.....	37	.....	N.W..	" light wind.
" 16.	28	.....	51	.....	41	.....	E....	" "
" 17.	25	.....	50	.....	41	.....	E....	" "
" 18.	26	.....	48	.....	40	.....	S.W..	Cloudy; light wind; Aurora Borealis at night.
" 19.	26	.....	50	.....	41	.....	N....	Clear; calm.
" 20.	25	.....	48	.....	40	.....	S.W..	" light wind.
" 21.	25	.....	48	.....	44	.....	E to N	" strong wind; cloudy evening.
" 22.	38	..	50	..	43	....	N.W..	" and cloudy; steady wind in the evening; rain.
" 23.	40	.....	52	.....	44	.....	N.W..	" and cloudy; light wind.

TEMPERATURE OF THE ATMOSPHERE, &c., SEPTEMBER, 1847. — *Con.*

DATE.	MORNING.		NOON.		EVENING.		WIND	REMARKS.
	Above	Below	Above	Below	Above	Below		
Sept. 24.	40	.....	50	.....	40	.....	N. W..	" and cloudy; moderate and steady wind.
" 25.	30	.....	40	.....	32	.....	N.	Cloudy; strong wind; <i>snowing.</i>
" 26.	28	.....	40	.....	34	.....	N.	Cloudy and clear; in the morning, snow; moderate wind.
" 27.	27	.....	44	.....	32	.....	N.	Clear; light wind.
" 28.	26	.....	44	.....	32	.....	E.	Cloudy; light wind; Aurora Borealis very bright at midnight.
" 29.	23	.....	45	.....	34	.....	N. E. .	Cloudy; light wind.
" 30.	24	.....	43	.....	32	.....	E.	Clear; calm.

TEMPERATURE OF THE ATMOSPHERE, &c., OCTOBER, 1847.—*Con.*

DATE.	MORNING.		NOON.		EVENING.		Wind	REMARKS.
	Above	Below	Above	Below	Above	Below		
Oct. 22..	3	.....	12	.....	4	.....	N. ...	Clear and calm; very red sky at night; ice drifting in the river; the back channels frozen over.
" 23..	...	3	15	.....	8	.....	N. E.	Hazy morning; moderate wind.
" 24..	.....	5	15	.....	14	.....	N. W.	Calm; clear day; cloudy evening.
" 25..	4	.....	21	.....	5	.....	N. E..	Calm and cloudy.
" 26..	10	.....	23	.....	18	.....	N. ...	Cloudy; strong wind; snowy evening.
" 27..	20	.....	28	.....	22	.....	W....	Cloudy; moderate wind; a little snow falling.
" 28	15	.....	25	.....	18	...	W....	Cloudy; blowing a gale; calmed at sunset.
" 29..	20	.....	26	.....	20	.....	N.E...	Moderate wind; snowing lightly all day.
" 30..	20	.....	25	.....	19	...	W....	Moderate wind; snowing lightly; ice set fast on the river.
" 31..	4	.....	16	.....	10	.....	N.W.	Light wind; clear day; cloudy evening.

TEMPERATURE OF THE ATMOSPHERE, &c.,
NOVEMBER, 1847.

DATE.	MORNING.		NOON.		EVENING.		Wind.	Remarks.
	Above	Below	Above	Below	Above	Below		
Nov. 1.	4	.....	25	.....	24	.....	W ...	Clear morning; calm; cloudy evening.
" 2.	15	.....	28	.....	25	.....	S.W..	Cloudy; blowing, with snow; clear night Aurora Borealis very bright.
" 3.	2	15	.....	8	.....	W ..	Clear; strong and sharp wind.
" 4.	21	.....	10	.....	15	N.W.	Clear; and calm.
" 5.	29	.....	15	.....	17	N....	Clear; but foggy; light wind.
" 6.	25	.....	16	.....	19	N....	Clear; light wind.
" 7.	15	.....	10	.....	13	W...	Clear and cloudy; light wind.
" 8.	3	.....	19	.....	12	N.W.	Light snow falling all day; light wind.
" 9.	10	.....	10	.....	9	.....	E....	Strong wind; cloudy; snowing at night.
" 10.	10	.....	10	.....	10	.....	E....	Moderate wind; cloudy.
" 11.	5	.....	.....	.....	4	N.E..	Light wind; clear.
" 12.	4	5	.....	4	.....	N.E..	Light wind; clear day; cloudy night; two bright mock suns seen all day.
" 13.	4	4	.....	.....	3	N.E..	Light wind; cloudy; clear night.
" 14.	20	.....	15	.....	20	N....	Light wind; clear; bright Aurora Borealis.
" 15.	24	.....	15	.....	12	W....	Calm and cloudy; snowing at night.
" 16.	10	.....	4	.....	9	W....	Light wind; cloudy; snowing lightly in the afternoon.
" 17.	10	.....	8	.....	10	W...	Light wind; snowing lightly all day.
" 18.	15	.....	10	.....	14	N.W.	Calm and cloudy.
" 19.	16	.....	14	.....	23	N.E..	Calm and clear.
" 20.	15	.....	9	.....	13	N.E..	Cloudy; strong wind in afternoon.
" 21.	5	.....	2	.....	2	E....	Cloudy; light wind.
" 22.	12	.....	9	.....	10	N.E..	Cloudy; light wind.

TEMPERATURE OF THE ATMOSPHERE, &c.,
DECEMBER, 1847.

DATE.	MORNING.		NOON.		EVENING.		Wind.	Remarks.
	Above	Below	Above	Below	Above	Below		
Dec. 1.	5	.....	4	.....	4	W....	Cloudy and little wind.
" 2.	4	.....	4	.....	4	N.E..	" snowing lightly; clear night.
" 3.	19	.....	17	.....	13	N....	Cloudy and clear; little wind.
" 4.	2	.....	.....	1	.....	S.W..	Cloudy; little wind.
" 5.	10	.....	4	.....	4	W....	Clear morning; afterwards cloudy; light wind.
" 6.	4	.....	2	.....	2	S.W..	Cloudy and calm.
" 7.	21	.....	22	.....	22	.....	S....	Cloudy; very strong wind, veered to the S. W. after midday and increased to a gale; continued all night.
" 8.	10	.....	8	.....	6	.....	W....	Cloudy; light wind; clear night.
" 9.	10	.....	10	.....	11	S.W..	Clear; strong wind after mid-day.
" 10.	24	.....	25	.....	26	W....	Clear; light wind; bright Aurora Borealis.
" 11.	42	.....	41	.....	41	N....	Clear, but foggy; light wind.
" 12.	49	.....	47	.....	47	N.W..	Clear, but foggy; almost calm.
" 13.	..	48	.....	47	.....	47	N....	Foggy morning; clear and calm.
" 14.	50	.....	49	.....	49	NtoS	Clear; light and variable wind.
" 15.	51	.....	50	.....	50	.....	Clear; dead calm.
" 16.	45	.....	43	.....	43	N.W..	Clear and calm.
" 17.	35	.....	34	.....	32	N....	Cloudy; light wind.
" 18.	31	.....	29	.....	26	S....	" "
" 19.	23	...	22	.....	20	N....	Cloudy; calm.
" 20.	13	.....	11	.....	10	S.W..	Cloudy; moderate wind.
" 21.	15	.....	20	.....	25	N.W..	Clear and calm.

TEMPERATURE OF THE ATMOSPHERE, &c.,
DECEMBER, 1847.—*Concluded.*

DATE.	MORNING.		NOON.		EVENING.		Wind.	Remarks.
	Above	Below	Above	Below	Above	Below		
Dec. 22.	10	.....	7	.....	5	N.E.	Cloudy; light wind; hazy but clear night; large lunar halo.
" 23.	7	.....	1	5	.....	N.W.	Snowing lightly all day; little wind.
" 24.	1	.....	2	.....	Calm and overcast.
" 25.	7	.....	5	.....	5	W....	Cloudy; steady and rather strong wind.
" 26.	20	.....	22	.....	25	S.W.	Clear morning; light wind; cloudy evening.
" 27.	18	.....	17	.....	17	.....	Calm and overcast.
" 28.	8	.....	7	.....	7	.....	Calm; snowing lightly all day; clear night.
" 29.	18	.....	17	.....	16	N.W.	Cloudy day; light wind; bright Aurora Borealis.
" 30.	33	.....	34	.....	35	W....	Calm and clear.
" 31.	42	.....	39	.....	38	W....	Calm and clear; snow 21 inches deep.

TEMPERATURE OF THE ATMOSPHERE, &c.,
JANUARY, 1848.

DATE.	MORNING.		NOON.		EVENING.		Wind	Remarks.
	Above	Below	Above	Below	Above	Below		
Jan. 1.		38	.....	35	.....	33	W....	Clear morning; overcast afternoon; a little snow at night.
" 2.		27	.....	25	.....	24	.....	Calm and overcast.
" 3.		22	.....	24	.....	23	N. ...	Calm and clear at noon; again overcast.
" 4.	1	.....	3	S.W..	Light wind; snowing in forenoon; afternoon clear; blowing strong and snowing at night.
" 5.		5	.....	5	.....	6	.....	Calm and overcast; a little snow fell in the morning.
" 6.		30	.....	34	.....	32	.....	Calm and clear.
" 7.		22	.....	17	.....	15	W....	Calm and overcast.
" 8.		5	.....	7	.....	9	S.W..	Moderate wind; clear afternoon.
" 9.		7	1	.....	.....	2	W....	Overcast; strong wind towards evening; blowing a gale at night; wind shifted to south.
" 10. 15		17	..	18	.....	S.	Strong wind and snowing.
" 11. 5	6	S.W..	Moderate and steady wind; clear; halo round the moon.
" 12.		22	.....	15	.....	13	N.	Clear; began to blow at 10 a.m.; two false suns seen all day.
" 13.		42	.....	40	.....	41	E	Clear; light winds.
" 14.		29	.....	26	.....	27	S.E. to N.	Overcast and light wind; clear evening; remarkable circle and images of the moon. See note.
" 15.		38	.....	35	..	31	N. ...	Calm; light snow in very small particles.
" 16.		46	.....	44	.....	45	.....	Calm and clear; fog on the river.
" 17.		50	.....	45	.....	44	N.	Calm and clear; thick fog.
" 18.		52	.....	50	.....	49	S.E...	Calm and clear.
" 19.		54½	.....	50	.....	51	N....	Calm and clear.

TEMPERATURE OF THE ATMOSPHERE, &c.,
JANUARY, 1848—*Concluded.*

DATE.	MORNING.		NOON.		EVENING.		Wind	Remarks.
	Above	Below	Above	Below	Above	Below		
Jan. 20.	54	....	51	....	17	N. to N.E.	Foggy morning; commenced to blow strong after midday; clouds collecting.
" 21.	12	....	14	....	13	N....	Cloudy; blowy morning; calm afternoon.
" 22.	10	....	10	....	11	S.W..	Snow with strong wind until noon; afternoon clear with moderate wind; Aurora Borealis very bright.
" 23.	15	...	7	....	8	N.E..	Overcast; light wind.
" 24.	19	....	10	....	12	W....	Light, raw wind; clear morning, cloudy evening.
" 25.	32	....	31	....	30	W....	Light wind; clear; hazy evening.
" 26.	48	...	47	....	47	....	Clear and calm; very foggy morning.
" 27.	48	....	47	....	46	N.W..	Clear morning, almost calm; overcast afternoon; light snow in the evening.
" 28.	51	....	46	....	48	E....	Clear, light wind.
" 29.	..	53½	....	50	...	52	....	Clear but foggy; calm; beautiful Aurora Borealis.
" 30.	58	....	51	....	25	N....	Foggy morning; calm and clear; commenced to blow afternoon; wind fell at 7 p.m.
" 31.	54	....	46	....	47	E....	Foggy morning; calm and clear. Snow 27 inches.

TEMPERATURE OF THE ATMOSPHERE, &c.,
FEBRUARY, 1848.

DATE.	MORNING.		NOON.		EVENING.		Wind	Remarks.
	Above	Below	Above	Below	Above	Below		
Feb. 1.	53	.....	46	.....	47	.....	Calm and clear; foggy morning and evening.
" 2.	55	.....	47	.....	49	S.W.	Calm and clear; foggy all day.
" 3.	46	.....	41	.....	42	...	Calm, becoming cloudy in the evening.
" 4.	55	.....	45	.....	47	.....	Calm and clear; foggy as usual.
" 5.	36	.....	35	...	39	W....	Calm and clear; light snow in the morning.
" 6.	35	.....	30	.....	30	S.W.	Calm and overcast; a little snow fell in the forenoon.
" 7.	...	26	.....	22	.....	28	S.E..	Light wind; cloudy; clearing up towards night.
" 8.	35	...	32	...	38	.....	Calm and clear.
" 9.	56	.....	46	.....	48	.....	Calm and clear; fog on the river.
" 10.	58½	.....	46	.....	48	N....	Calm and clear; light wind in the evening.
" 11.	53	.....	42	.....	44	...	Calm and clear.
" 12.	...	50	.....	42	.....	37	...	Calm and clear; cloudy evening.
" 13.	36	.....	32	...	34	W...	Light wind; cloudy.
" 14.	26	.....	25	.....	25	.....	Calm and cloudy.
" 15.	22	.....	12	.....	18	S.E..	Calm and cloudy; clear evening.
" 16.	25	.....	21	.....	19	.....	Calm and cloudy; clear evening.
" 17.	20	.....	10	.....	12	.....	Calm and cloudy; halo around the moon.
" 18.	...	22	.....	12	...	10	N....	Calm and cloudy; commenced to blow in the evening; combined lunar halo and corona.
" 19.	2	.....	.....	2	N.W.	Calm and clear and cloudy; blowing at night.
" 20.	...	5	.....	4	.....	4	W....	Strong wind; cloudy; clear night; beautiful Aurora Borealis.
" 21.	35	.....	15	.....	13	N....	Light wind; clear.
" 22.	23	.....	14	.....	12	N....	Light wind; clear; cloudy evening.

TEMPERATURE OF THE ATMOSPHERE, &c.,
FEBRUARY, 1848—*Concluded.*

DATE.	MORNING.		NOON.		EVENING.		Wind	Remarks.
	Above	Below	Above	Below	Above	Below		
Feb. 23.	6	.....	.....	.....	4	.....	Calm ; clear and cloudy.
" 24.	5	10	.....	8	.....	S.W.	Calm ; snowing lightly in forenoon.
" 25.	8	.....	.....	4	.....	9	S.W.	Blowing a gale all day ; snowing ; clear evening.
" 26.	15	.....	14	.....	14	S.W.	Strong wind ; clear.
" 27.	22	.....	12	.....	9	.....	Calm and clear morning afterwards cloudy.
" 28.	33	.....	22	.....	15	N.W.	Calm and clear.
" 29.	36	.....	23	.....	19	.....	" "

Snow drifted so much that it is difficult to ascertain the exact depth. The average may be 32 inches.

TEMPERATURE OF THE ATMOSPHERE, &c., MARCH, 1848.

DATE.	MORNING.		NOON.		EVENING.		WIND	REMARKS.
	Above	Below	Above	Below	Above	Below		
March 1	25	.....	13	....	14	.....	Calm and Cloudy.
" 2	33	.....	14	.....	14	E....	" and clear at 3 p.m ; Ther. 9 below 0.
" 3	33	.....	13	.....	13	.....	Calm and clear.
" 4	33	.....	4	.....	1	N.E..	Clear; blowing strong after 10 a.m.
" 5	10	5	.....	2	.....	N.E..	Clear; blowing strong al day.
" 6	10	4	.....	.....	.....	N.E..	" " "
" 7	..	19	.....	7	.....	5	.....	Clear and calm
" 8	30	.....	7	....	13	....	" "
" 9	29	.....	5	.....	10	S.W..	" " cloudy evening.
" 10	..	10	.....	5	.....	8	S.W..	Clear; light wind; a little snowfall during the night.
" 11	31	.....	10	.....	15	N.E..	Clear; light wind; halo round the moon.
" 12	37	.....	10	.....	15	.....	Clear and calm.
" 13	37	.....	10	.....	14	.....	Clear and calm; one false sun seen in the fore- noon; halo round the moon.
" 14	28	.....	6	.....	10	N.W..	Clear; light wind; cloudy evening.
" 15	30	.....	10	.....	14	S.W..	Clear and calm.
" 16	30	....	10	.....	15	.....	" "
" 17	27	.....	12	.....	15	.....	" " halo round the moon.
" 18	36	.....	10	.....	12	N.E..	Clear and calm; clouds collecting at night.
" 19	23	.....	10	.....	13	W....	Cloudy; light wind; clear evening.
" 20	18	.....	3	.....	13	N....	Snowing lightly in fore- noon; light wind; bright; Parhelia all day.
" 21	19	.....	7	.....	13	.....	Clear and calm.
" 22	12	3	.....	.....	2	N.W..	Cloudy; light wind.
" 23	10	3	.....	.....	7	.....	Cloudy and calm; clear evening.

TEMPERATURE OF THE ATMOSPHERE, &c., MARCH, 1848.
—*Concluded.*

DATE.	MORNING.		NOON.		EVENING.		WIND	REMARKS.
	Above	Below	Above	Below	Above	Below		
Mar. 24	.....	8	12	.....	.....	5	N.E..	Strong wind; snowing lightly all day.
" 25	.....	7	5	.....	.....	5	S.W..	Light wind.
" 26	3	.....	15	.....	7	.....	W....	Cloudy; blowing a gale after midday.
" 27	.....	10	15	.....	7	.....	S.W..	Blowing strong; wind shifted to west after noon; snowy evening.
" 28	10	.....	22	.....	24	.....	W....	Blowing a gale; clear evening.
" 29	5	.....	28	.....	20	.....	N....	Cloudy afternoon; blowing strong at night.
" 30	10	.....	15	.....	5	.....	.....	Calm and clear.
" 31	.....	10	10	.....	7	.....	W....	Light wind and clear.

Snow much *packed* and decreasing in depth.

TEMPERATURE OF THE ATMOSPHERE, &c., APRIL, 1848.

DATE.	MORNING.		NOON.		EVENING.		WIND	REMARKS.
	Above	Below	Above	Below	Above	Below		
April 1	.....	2	7	.....	7	.....	S.W.	Strong wind; snowing.
" 2	....	7	5	.....	7	.....	N.E.	Light wind; clear.
" 3	.....	28	.....	10	....	7	N....	" "
" 4	.....	26	....	8	.....	3	N....	Strong wind "
" 5	....	10	.....	3	.....	.....	N....	" " clear; calm evening.
" 6	.....	10	.....	1	.....	.....	N.E.	Strong wind; clear.
" 7	.....	16	.....	2	.....	4	.....	Calm; clear.
" 8	.....	15	....	5	.....	4	N....	Light wind; clear.
" 9	.....	26	2	.....	5	.....	W....	" cloudy.
" 10	.....	8	5	.....	15	.....	N....	" " light snow during night.
" 11	2	.....	29	.....	20	.....	N.E.	Light wind; cloudy; Parhelia in forenoon.
" 12	11	....	32	.....	30	.....	N.E.	Light wind; cloudy; Ther. 40 above at 4 p.m.; Parhelia and halo round the sun this morning.
" 13	22	....	32	.....	32	....	N.W. to S.	Light and variable wind; snowing all day.
" 14	10	.....	22	....	25	....	W....	Strong wind and clear.
" 15	.....	1	15	.....	27	.....	.....	Calm and clear; Parhelia in forenoon.
" 16	12	.....	31	.....	32	.....	N.W.	Light wind; cloudy morning; clear evening.
" 17	5	....	28	.....	25	.....	.....	Calm and clear; remarkable halo and Parhelia; see note.
" 18	8	.....	15	.....	18	.....	N.W.	Strong wind; clear.
" 19	2	.....	18	.....	15	.....	W....	" "
" 20	..	8	18	.....	18	....	W....	Light wind "
" 21	8	....	27	.....	28	.....	N.W.	" "
" 22	8	....	27	....	28	.....	N.E.	Strong wind "
" 23	15	.....	30	.....	30	....	N.E.	" cloudy.
" 24	12	....	20	.....	20	.....	N....	" snowing after midday.

TEMPERATURE OF THE ATMOSPHERE, &c., APRIL, 1848.
—*Concluded.*

DATE.	MORNING.		NOON.		EVENING.		WIND	REMARKS.
	Above	Below	Above	Below	Above	Below		
April 25	14	.....	22	.....	24	.....	N....	Snowy forenoon; strong wind; two mock suns and halo round the sun in the afternoon.
" 26	18	....	33	.....	43	.....	N....	Calm; clear and cloudy.
" 27	28	.....	49	.....	52	.....		Calm; cloudy morning; clear evening.
" 28	28	...	52	.....	54	....	N. E..	Clear; pleasant breeze.
" 29	34	.....	48	.....	45	.....	W....	" " cloudy evening.
" 30	35	.....	45	.....	48		E....	Clear; strong wind.

TEMPERATURE OF THE ATMOSPHERE, &c., MAY, 1848

DATE.	MORNING.		NOON.		EVENING.		WIND	REMARKS.
	Above	Below	Above	Below	Above	Below		
May 1..	30	.....	45	.....	42	.....	N.E..	Strong wind ; cloudy and clear.
" 2..	28	.....	45	.....	39	.....	N.E..	Light wind ; clear.
" 3..	28	.....	46	...	47	.....	N.E..	Very light wind ; clear.
" 4..	30	.....	39	...	34	.....	E...	Strong wind ; clear.
" 5..	18	.....	33	.....	30	.....	E...	" " calm evening.
" 6..	24	.....	30	.....	31	.....	E...	Strong wind ; clear.
" 7..	23	...	30	.....	30	.....	N.E..	" snowing lightly all day.
" 8..	26	.....	32	...	33	.....	N.E..	Strong wind ; heavy snow ; calmed at 7 p.m.
" 9..	30	...	43	...	47	.....	S.W. to N.E.	Light and variable wind ; clear ; river rising.
" 10..	30	...	40	.....	42	...	N.E..	Moderate wind ; clear ; river rising.
" 11..	26	.....	39	...	40	.....	N.E..	Strong wind ; clear ; river rising.
" 12..	24	.....	33	.....	30	.....	N.E..	Blowing a gale ; cloudy ; river subsiding.
" 13..	29	.....	45	.....	48	.....	S.W..	Very light wind ; clear ; river rising.
" 14..	41	.....	51	.....	49	.....	N.E..	Strong wind ; cloudy morning ; clear evening ; the river broke up this afternoon.
" 15..	41	.....	54	...	51	...	N.E..	Light wind ; clear.
" 16..	33	...	45	.....	42	.....	W...	Strong wind ; cloudy.
" 17..	34	.....	43	.....	44	.....	W...	" clear and cloudy.
" 18..	39	.....	53	.....	50	.....	W. to E.	Clear and squally.
" 19..	42	.....	54	.....	55	...	E....	Light wind ; clear.
" 20..	46	.....	56	.....	63	.....	.....	Calm ; clear day ; sultry and cloudy evening.
" 21..	49	.....	68	.....	66	.....	E....	Variable and light wind ; clear ; ther. at 72 at 3 p.m.
" 22..	50	.....	66	.....	63	.....	N.E..	Strong wind ; clear.
" 23..	48	.....	67	.....	67	...	N.E..	Moderate wind ; clear.
" 24..	47	.....	58	.....	57	.....	N.E..	Strong wind ; clear.

TEMPERATURE OF THE ATMOSPHERE, &c., MAY, 1848.—
—*Concluded.*

DATE.	MORNING.		NOON.		EVENING.		WIND	REMARKS.
	Above	Below	Above	Below	Above	Below		
" 25..	44	.....	50	. . .	46	....	N.E to E.	Variable wind ; clear ; calm evening.
" 26..	40	.....	50	. . .	49	....	E	Strong wind ; clear.
" 27..	44	.....	56	. . . .	54	....	E	Pleasant breeze ; clear ; calm evening.
" 28..	44	.....	54	.....	49	....	E	Strong wind ; cloudy and clear.
" 29..	45	.....	56	.....	62	.....	S.	Very light wind ; cloudy and clear ; a slight shower of rain at 2 p.m.
" 30..	51	62	68	S.E ..	Squally and calm ; a shower of rain.
" 31..	52	. . .	70	66	S.E ..	Squally ; a heavy shower of rain in the afternoon.

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